MUSCLE & NERVE

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

VOLUME 40

ISSUES 1–6

JULY–DECEMBER 2009

WILEY
Publishers Since 1807

MUSCLE & NERVE

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

CONTENTS

JULY 2009

EDITORIALS

4 **From the Editor: July Issue**
Lawrence H Phillips, II MD

6 **Acknowledgment: Ad Hoc Reviewers**

8 **TDP-43: A Reliable Immunohistochemistry Marker for Inclusion Body Myositis?**
Ashok Verma, MD, DM and Rup Tandan, MD, FRCP

INVITED REVIEW

10 **Piriformis Syndrome, Diagnosis and Treatment**
Jonathan S. Kirschner, MD, Patrick M. Foye, MD, and Jeffrey L. Cole, MD

MAIN ARTICLES

19 **Sarcoplasmic Redistribution of Nuclear TDP-43 in Inclusion Body Myositis**
Mohammad Salajegheh MD, Jack L. Pinkus, PhD, J. Paul Taylor, MD, PhD, Anthony A. Amato, MD, Remedios Nazareno, BS, Robert H. Baloh, MD, PhD, and Steven A. Greenberg, MD

32 **Screening for Pompe Disease Using a Rapid Dried Blood Spot Method: Experience of a Clinical Diagnostic Laboratory**
Jennifer L. Goldstein, PhD, MS, Sarah P. Young, PhD, Mohita Changela, BS, Gwen H. Dickerson, BS, Haoyue Zhang, PhD, Jian Dai, BS, Denise Peterson, BS, David S. Millington, PhD, Priya S. Kishnani, MD, and Deeksha S. Bali, PhD

37 **Determination of the Best Electrode Position for Recording of the Diaphragm Compound Muscle Action Potential**
Annie Dionne, MD, Anthony Parkes, BSc, Beata Engler, BSc, Bradley V. Watson, BSc, and Michael W. Nicolle, MD, DPhil

42 **CSF Protein Biomarkers for Proximal Axonal Damage Improve Prognostic Accuracy in the Acute Phase of Guillain-Barré Syndrome**
A. Petzold, MD, PhD, J. Brettschneider, MD, K. Jin, MD, G. Keir, PhD, N.M.F. Murray, FRCP, N.P. Hirsch, FRCP, Y. Itoyama, MD, PhD, M.M. Reilly, FRCP, A. Takeda, MD, PhD, and H. Tumani, MD

50 **Glial Fibrillary Acidic Protein as a Marker of Axonal Damage in Chronic Neuropathies**
Francesca Notturno, MD, Margherita Capasso, MD, Angelo DeLauretis, MD, PhD, Marinella Carpo, MD, PhD, and Antonino Uncini, MD

55 **Electrophysiological Studies in a Mouse Model of Schwartz–Jampel Syndrome Demonstrate Muscle Fiber Hyperactivity of Peripheral Nerve Origin**
Andoni Echaniz-Laguna, MD, PhD, Frédérique Rene, PhD, Christophe Marcel, MD, Marie Bangratz, MS, Bertrand Fontaine, MD, PhD, Jean-Philippe Loeffler, PhD, and Sophie Nicole, PhD

62 **Vastus Lateralis Na^+-K^+-ATPase Activity, Protein, and Isoform Distribution in Chronic Obstructive Pulmonary Disease**
Henry James Green, PhD, Margaret Elizabeth Burnett, MSc, Christine Linda D'arsigny, MD, Katherine Alexandra Webb, BSc, Ian McBride, BSc, Jing Ouyang, MD, and Dennis Einan O'Donnell, MD

69 **Atrogin-1, MuRF1, and FoXO, as Well as Phosphorylated GSK-3β and 4E-BP1 Are Reduced in Skeletal Muscle of Chronic Spinal Cord–Injured Patients**
Bertrand Léger, PhD, Rosalba Senese, PhD, Abdul W. Al-Khodairy, MD, Olivier Dériaz, PhD, MD, Charles Gobelet, MD, Jean-Paul Giacobino, PhD, MD, and Aaron P. Russell, PhD

79 **Correlation Between Isometric Force and Intramuscular Pressure in Rabbit Tibialis Anterior Muscle with an Intact Anterior Compartment**
Taylor M. Winters, MS, Genaro S. Sepulveda, BS, Patrick S. Cottler, PhD, Kenton R. Kaufman, PhD, Richard L. Lieber, PhD, and Samuel R. Ward, PT, PhD

86 **Management of Extreme Carpal Tunnel Syndrome: Evidence from a Long-Term Follow-Up Study**
Margherita Capasso, MD, PhD, Claudia Manzoli, MD, and Antonino Uncini, MD

94 **Median Nerve Ultrasonography in Carpal Tunnel Syndrome: Findings From Two Laboratories**
Lisa D. Hobson-Webb, MD, and Luca Padua, MD, PhD

98 **Diagnostic Nerve Ultrasound in Charcot–Marie–Tooth Disease Type 1B**
Michael S. Cartwright, MD, Martin E. Brown, MD, Patrick Eulitt, BS, Francis O. Walker, MD, Victoria H. Lawson, MD, and James B. Caress, MD

103 **Hip Flexor Fatigue Limits Walking in Charcot–Marie–Tooth Disease**
Gita M. Ramdharry, MSc, PhD, Brian L. Day, MSc, DPhil, Mary M. Reilly, MD, FRCP, and Jonathan F. Marsden, MSc, PhD

112 **Fiber Density of the Motor Units Recruited at High and Low Force Output**
Miklós Lukács, MD, László Vécsei, MD, DSc, and Sándor Beniczky, MD, PhD

115 **Motor Unit Number Estimation in the Rat Tail Using a Modified Multipoint Stimulation Technique**
Lora J. Kasselman, PhD, Jeremy M. Shefner, MD, PhD, and Seward B. Rutkove, MD

SHORT REPORTS

122 **Enzyme Replacement Therapy in Adult-Onset Glycogenosis II: Is Quantitative Muscle MRI Helpful?**
A. Pichiecchio, MD, G.U. Poloni, PhD, MD, S. Ravaglia, MD, PhD, M. Ponzio, PhD, G. Germani, BSc, D. Maranzana, BSc, A. Costa, MD, PhD, A. Repetto, MD, E. Tavazzi, MD, C. Danesino, MD, PhD, A. Moglia, MD, PhD, and S. Bastianello, MD, PhD

126 **Serum Creatine Kinase Levels in Spinobulbar Muscular Atrophy and Amyotrophic Lateral Sclerosis**
Nizar Chahin, MD, and Eric J. Sorenson, MD

130 **Torque-Based Triggering Improves Stimulus Timing Precision in Activation Tests**
Chandramouli Krishnan, MA, PT, Eric J. Allen, MS, PT, and Glenn N. Williams, PhD, PT

134 **"Dropped Head Syndrome " Caused by Lambert-Eaton Myasthenic Syndrome**
T. Ueda, MD, F. Kanda, MD, PhD, H. Kobessho, MD, H. Hamaguchi, MD, PhD, and M. Motomura, MD, PhD

137 **Thymic Carcinoma in Myasthenia Gravis Developing Years After Thymectomy**
Hans D. Katzberg, MD, Robert G. Miller, MD, and Jonathan Katz, MD

CASES OF THE MONTH

139 **Increased Sensitivity to a Nondepolarizing Muscle Relaxant in a Patient with Acquired Neuromyotonia**
Greg Ginsburg, MD, Ryan Forde, BS, Jeevendra A.J. Martyn, MD, and Matthias Eikermann, MD, PhD

143 **A Novel Mutation of the GAA Gene in a Finnish Late-Onset Pompe Disease Patient: Clinical Phenotype and Follow-Up with Enzyme Replacement Therapy**
Mari P. Korpela, MD, PhD, Anders Paetau, MD, PhD, Mervi I. Löfberg, MD, PhD, Marjut H. Timonen, MSc, Antti E. Lamminen, MD, PhD, and Sari M.K. Kiuru-Enari, MD, PhD

AANEM PRACTICE TOPIC

149 **Diagnostic Criteria for Late-Onset (Childhood and Adult) Pompe Disease**
American Association of Neuromuscular & Electrodiagnostic Medicine

REGULAR FEATURES

161 **Calendar of Events**

162 **AANEM News and Comments**

AUGUST 2009

OBITUARY

169 **George Karpati (1934–2009)**
Kenneth Hastings, PhD

EDITORIAL

171 **The Value of Electromyography: Toward an Evidence-Based Use of Electrodiagnostic Testing**
Yuen T. So, MD, PhD

INVITED REVIEW

173 **Autophagy, Lithium, and Amyotrophic Lateral Sclerosis**
Livia Pasquali, MD, PhD, Patrizia Longone, PhD, Ciro Isidoro, MD, PhD, Stefano Ruggieri, MD, Antonio Paparelli, MD, PhD, and Francesco Fornai, MD, PhD

MAIN ARTICLES

195 **Clinical Utility of Electrodiagnostic Studies in the Inpatient Setting**
Daryl I. Perry, MD, Andrew W. Tarulli, MD, Rachel A. Nardin, MD, Seward B. Rutkove, MD, Shiva Gautam, PhD, and Pushpa Narayanaswami, MD

200 **Quality of Life and Pain in Patients with Facioscapulohumeral Muscular Dystrophy**
Luca Padua, MD, PhD, Irene Aprile, MD, PhD, Roberto Frusciante, MD, Elisabetta Iannaccone, MD, Monica Rossi, PhD, Rosaria Renna, MD, Sonia Messina, MD, PhD, Giuseppina Frasca, MD, and Enzo Ricci, MD

206 **Spinal Angiography and Epidural Venography in Juvenile Muscular Atrophy of the Distal Arm "Hirayama Disease"**
Bakri Elsheikh, MBBS, John T. Kissel, MD, Gregory Christoforidis, MD, Matthew Wicklund, MD, Dimitri T. Kehagias, MD, E. Antonio Chiocca, MD, PhD, and Jerry R. Mendell, MD

213 **Modulation of the Soleus H-Reflex Following Galvanic Vestibular Stimulation and Cutaneous Stimulation in Prone Human Subjects**
Catherine R. Lowrey, MSc, and Leah R. Bent, PhD

221 **Nonlinear Twitch Torque Summation by Motor Units Activated at M-Wave and H-Reflex Latencies**
Jesse C. Dean, PhD, and David F. Collins, PhD

231 **Pronation–Supination Torque and Associated Electromyographic Activity Varies During a Sustained Elbow Flexor Contraction But Does Not Influence the Time to Task Failure**
Didier Staudenmann, PhD, Thorsten Rudroff, PhD, and Roger M. Enoka, PhD

240 **Electromyography and Mechanomyography of Elbow Agonists and Antagonists in Parkinson Disease**
Jarosław Marusiak, PhD, Anna Jaskólska, PhD, Ewa Jarocka, MSc, Wojciech Najwer, MScEng, Katarzyna Kisiel-Sajewicz, PhD, and Artur Jaskólski, PhD

249 **Actin Sliding Velocity on Pure Myosin Isoforms from Dystrophic Mouse Muscles**
Monica Canepari, PhD, Rosetta Rossi, PhD, Orietta Pansarasa, PhD, Manuela Maffei, PhD, and Roberto Bottinelli, MD, PhD

257 **Influence of Intrinsic Noise Generated by a Thermotesting Device on Thermal Sensory Detection and Thermal Pain Detection Thresholds**
G. Pavlaković, MD, PhD, K. Züchner, PhD, A. Zapf, C.G. Bachmann, MD, B.M. Graf, MD, T.A. Crozier, MD, PhD, and H. Pavlaković, MD

264 **Adductor T Reflex Abnormalities in Patients with Decreased Patellar Reflexes**
Cengiz Tataroglu, MD, Ersin Deneri, MD, Ayca Ozkul, MD, Ahmet Sair, MD, and Soner Yaycioglu, MD

271 **Electrophysiological Diagnosis and Patterns of Response to Treatment of Botulism with Neuromuscular Respiratory Failure**
Subsai Kongsaengdao, MD, Kanoksri Samintarapanya, MD, Siwarit Rusmeechan, MD, Pasiri Sithinamsuwan, MD, and Surat Tanprawate, MD

279 **Acetylcholine Receptor-α Subunit Expression in Myasthenia Gravis: A Role for the Autoantigen in Pathogenesis?**
Jian Rong Sheng, PhD, Liang Cheng Li, PhD, Bellur S. Prabhakar, PhD, and Matthew N. Meriggioli, MD

SHORT REPORTS

287 **CD73 Is Expressed on Invading T Lymphocytes in the Inflamed Peripheral Nerve**
Gerd Meyer zu Hörste, MD, Jens Reiners, BSc, Helmar C. Lehmann, MD, Laura Airas, MD, and Bernd C. Kieseier, MD

290 **Persistent Multifocal Pseudo-Conduction Blocks in Vasculitic Neuropathy without Antiganglioside Antibodies**
Rechdi Ahdab, MD, Marc Michel, MD, Danusa O. Neves, MD, Chantal Andre, MD, and Jean-Pascal Lefaucheur, MD, PhD

294 **Axonal Sensory Motor Neuropathy in Copper-Deficient Wilson's Disease**
Alexandra Foubert-Samier, MD, Annabelle Kazadi, MD, Marie Rouanet, MD, Anne Vital, MD, PhD, Alain Lagueny, MD, François Tison, MD, PhD, and Wassilios Meissner, MD, PhD

ISSUES AND OPINIONS

297 **Amyotrophic Lateral Sclerosis—Evolutionary and Other Perspectives**
Andrew Eisen, MD, FRCPC

CASES OF THE MONTH

305 **Favorable Response to Rituximab in a Patient with Anti-VGCC-Positive Lambert-Eaton Myasthenic Syndrome and Cerebellar Dysfunction**
Hannah L. Pellkofer, MD, Raymond Voltz, MD, and Tania Kuempfel, MD

309 **Distal-Symmetric Focal Inflammatory Myopathy Distinct from Focal Myositis and Polymyositis**
Nico Melzer, MD, Carsten Wessig, MD, Jochen C. Ulzheimer, MD, Karlheinz Reiners, MD, Klaus V. Toyka, MD, Martin Bendszus, MD, and Guido Stoll, MD

313 **Atypical Deep Peroneal Neuropathy in the Setting of an Accessory Deep Peroneal Nerve**
Rana Kayal, MD, and Bashar Katirji, MD

REGULAR FEATURES

316 **Letters to the Editor**

320 **Calendar of Events**

321 **AANEM News and Comments**

SEPTEMBER 2009

INVITED REVIEWS

331 **Jitter Recordings with Concentric Needle Electrodes**
Erik V. Stålberg, MD, PhD, and Donald B. Sanders, MD

340 **Hereditary Inclusion-Body Myopathy: Clues on Pathogenesis and Possible Therapy**
Aldobrando Broccolini, MD, PhD, Teresa Gidaro, MD, Roberta Morosetti, MD, and Massimiliano Mirabella, MD, PhD

MAIN ARTICLES

350 **Permanent Muscle Weakness in McArdle Disease**
Aleksandra A. Nadaj-Pakleza, MD, PhD, Carlo M. Vincitorio, MD, Pascal Laforêt, MD, Bruno Eymard, MD, PhD, Elisabeth Dion, MD, Susana Teijeira, MSc, PhD, Irene Vietez, MSc, Marc Jeanpierre, MD, Carmen Navarro, MD, PhD, and Tanya Stojkovic, MD

358 **Conduction Block and Impaired Axonal Function in Tick Paralysis**
Arun V. Krishnan, MBBS, PhD, Cindy S. Lin, PhD, Stephen W. Reddel, MBBS, PhD, Robert McGrath, MBBS, and Matthew C. Kiernan, MBBS, PhD

363 **Quantitative Sensation and Autonomic Test Abnormalities in Transthyretin Amyloidosis Polyneuropathy**
Dong Hwee Kim, MD, Steven R. Zeldenrust, MD, Phillip A. Low, MD, and Peter J. Dyck, MD

371 **Optimizing Acquisition Time in Quantitative Electromyography**
Alexander A. Brownell, MS, and Mark B. Bromberg, MD, PhD

374 **Assay of Diffusion of Different Botulinum Neurotoxin Type A Formulations Injected in the Mouse Leg**
Luca Carli, PhD, Cesare Montecucco, FP, and Ornella Rossetto, PhD

381 **Identification of Ataxia-Associated mtDNA Mutations (m.4052T>C and m.9035T>C) and Evaluation of Their Pathogenicity in Transmitochondrial Cybrids**
Marianna Sikorska, PhD, Jagdeep K. Sandhu, PhD, David K. Simon, MD, PhD, Vimukthi Pathiraja, MD, Caroline Sodja, MSc, Yan Li, MD, Maria Ribecco-Lutkiewicz, PhD, Patricia Lanthier, BSc, Henryk Borowy-Borowski, PhD, Adrian Upton, MD, PhD, Sandeep Raha, PhD, Stefan M. Pulst, MD, PhD, and Mark A. Tarnopolsky, MD, PhD

395 **Fatigue-Related Changes in Fascicle-Tendon Geometry Over Repeated Contractions: Difference Between Synergist Muscles**
Naotoshi Mitsukawa, MSc, Norihide Sugisaki, PhD, Hiroaki Kanehisa, PhD, Tetsuo Fukunaga, PhD, and Yasuo Kawakami, PhD

402 **Ankle Torque Steadiness Is Related to Muscle Activation Variability and Coactivation in Children with Cerebral Palsy**
Thomas Bandholm, MSc, Martin H. Rose, BSc, Rikke Sløk, BSc, Stig Sonne-Holm, MD, DMSc, and Bente R. Jensen, PhD

411 **Transcriptional Regulation of the Myosin Heavy Chain IIB Gene in Inactive Rat Soleus**
Gary E. McCall, PhD, Fadia Haddad, PhD, Roland R. Roy, PhD, Hui Zhong, MD, V. Reggie Edgerton, PhD, and Kenneth M. Baldwin, PhD

420 **Changes in Joint Angle, Muscle-Tendon Complex Length, Muscle Contractile Tissue Displacement, and Modulation of EMG Activity During Acute Whole-Body Vibration**
Darryl J. Cochrane, MPhEd, Ian D. Loram, PhD, Stephen R. Stannard, PhD, and Jörn Rittweger, PhD

430 **Effects of Unilateral Electromyostimulation Superimposed on Voluntary Training on Strength and Cross-Sectional Area**
Pedro Bezerra, MSc, Shi Zhou, PhD, Zachary Crowley, BSc, Lyndon Brooks, PhD, and Andrew Hooper, MD

438 **Utility of Cystatin C to Monitor Renal Function in Duchenne Muscular Dystrophy**
Laurence Viollet, PhD, Susan Gailey, BA, David J. Thornton, PhD, Neil R. Friedman, MBChB, Kevin M. Flanigan, MD, John D. Mahan, MD, and Jerry R. Mendell, MD

443 **Effects of Prednisolone on Skeletal Muscle Contractility in *MDX* Mice**
Kristen A. Baltgalvis, PhD, Jarrod A. Call, MS, Jason B. Nikas, DPT, and Dawn A. Lowe, PhD

455 **Assessment of Satellite Cell Number and Activity Status in Human Skeletal Muscle Biopsies**
Abigail L. Mackey, PhD, Michael Kjaer, MD, PhD, Nadia Charifi, PhD, Jan Henriksson, MD, PhD, Jens Bojsen-Moller, PhD, Lars Holm, MSc, and Fawzi Kadi, PhD

SHORT REPORTS

466 **Long-Term Therapy with Deflazacort Decreases Myocardial Fibrosis in *mdx* Mice**
Maria Julia Marques, PhD, Daniella Silva Oggiam, MSci, Isabel Cristina Chagas Barbin, MSci, Renato Ferretti, MSci, and Humberto Santo Neto, PhD

469 **Dermatomyositis with Inclusion Body Myositis Pathology**
Robert Layzer, MD, Han Sung Lee, MD, PhD, Donald Iverson, MD, and Marta Margeta, MD, PhD

472 **Hereditary Rimmed Vacuole Myopathy Showing Interstitial Amyloid Deposition in Muscle Tissue**
Yukiko Kojima, MD, Kenji Sakai, MD, PhD, Chiho Ishida, MD, PhD, Tomoya Asaka, MD, PhD, Tsuyoshi Hamaguchi, MD, PhD, Ichiro Nozaki, MD, PhD, Kazuhiro Fukushima, MD, PhD, Ayako Tsuchiya, MD, PhD, Fuyuki Kametani, PhD, Masahide Yazaki, MD, PhD, Soichi Okino, MD, PhD, and Masahito Yamada, MD, PhD

CASES OF THE MONTH

476 **Pericardial Effusion with Cardiac Tamponade as a Cardiac Manifestation of Duchenne Muscular Dystrophy**
Jainn-Jim Lin, MD, Mao-Sheng Hwang, MD, Shao-Hsuan Hsia, MD, Hung-Tao Chung, MD, Yu-Sheng Chang, MD, and Kuang-Lin Lin, MD

481 **Sensorimotor Neuronopathy in Ataxia with Oculomotor Apraxia Type 2**
José Gazulla, MD, Isabel Benavente, MD, Isabel Pérez López-Fraile, MD, Pedro Modrego, MD, and Michel Koenig, MD

REGULAR FEATURES

486 **Letters to the Editor**

490 **Calendar of Events**

491 **AANEM News and Comments**

OCTOBER 2009

INVITED REVIEW

499 **Muscle after Spinal Cord Injury**
Bo Biering-Sørensen, MD, Ida Bruun Kristensen, MD, Michael Kjær, MD, DMSc, and Fin Biering-Sørensen, MD, DMSc

MAIN ARTICLES

520 **Nature of "Tau" Immunoreactivity in Normal Myonuclei and Inclusion Body Myositis**
Mohammad Salajegheh, MD, Jack L. Pinkus, PhD, Remedios Nazareno, BS, Anthony A. Amato, MD, Kenneth C. Parker, PhD, and Steven A. Greenberg, MD

529 **Characterization of a Novel C8 Phasic Muscle Stretch Reflex**
Steven K. Baker, MSc, MD

535 **Elicitability of Muscle Cramps in Different Leg and Foot Muscles**
Marco Alessandro Minetto, MD, PhD, and Alberto Botter, MS

545 **DMPK Protein Isoforms are Differentially Expressed in Myogenic and Neural Cell Lineages**
Ralph J.A. Oude Ophuis, MSc, Susan A.M. Mulders, BSc, René E.M.A. van Herpen, PhD, Rinske van de Vorstenbosch, BSc, Bé Wieringa, PhD, and Derick G. Wansink, PhD

556 **The Expression of Vascular Endothelial Growth Factor in Skeletal Muscle of Patients with Sleep Disorders**
Britta Wåhlin-Larsson, MS, Jan Ulfberg, PhD, Karin Piehl Aulin, PhD, and Fawzi Kadi, PhD

562 **CXCR4 Enhances Engraftment of Muscle Progenitor Cells**
Antonio L. Perez, BA, Estanislao Bachrach, PhD, Ben M.W. Illigens, MD, Susan J. Jun, BA, Eric Bagden, Leta Steffen, PhD, Alan Flint, BA, Francis X. McGowan, MD, Pedro del Nido, MD, Enca Montecino-Rodriguez, PhD, James G. Tidball, PhD, and Louis M. Kunkel, PhD

573 **Predicting the Effect of Muscle Length on Fatigue during Electrical Stimulation**
M. Susan Marion, PhD, Anthony S. Wexler, PhD, Maury L. Hull, PhD, and Stuart A. Binder-Macleod, PhD

582 **Effect of the Free Radical Scavenger Edaravone on Peripheral Nerve Ischemia–Reperfusion Injury**
Haruyasu Iida, MD, Takamura Nagasaka, MD, Kazumasa Shindo, MD, and Zenji Shiozawa, MD

589 **Location of Myofiber Damage in Skeletal Muscle after Lengthening Contractions**
Richard M. Lovering, PhD, PT, Alan B. Mcmillan, PhD, and Rao P. Gullapalli, PhD

595 **Perceived Pain and Temporomandibular Disorders in Neuromuscular Diseases**
Michael J. Fischer, MD, Kathrin Riedlinger, MD, Benedikt Schoser, MD, PhD, and Michael Bernateck, MD

603 **Postoperative Outcomes and Reliability of "Sensation-Sparing" Sural Nerve Biopsy**
Chris A. Campbell, MD, Kristin C. Turza, MD, and Raymond F. Morgan, MD

610 **Noninvasive Model of Sciatic Nerve Conduction in Healthy and Septic Mice: Reliability and Normative Data**
Marcin F. Osuchowski, DVM, PhD, James Teener, MD, and Daniel Remick, MD

617 **Effect of Electrode Location on Surface Electromyography Changes Due to Eccentric Elbow Flexor Exercise**
Harri Piitulainen, MSc, Reijo Bottas, MSc, Vesa Linnamo, PhD, Paavo Komi, PhD, and Janne Avela, PhD

SHORT REPORTS

626 **Lyme Disease Serology in Amyotrophic Lateral Sclerosis**
Muddasir Qureshi, MD, Richard S. Bedlack, MD, PhD, and Merit E. Cudkowicz, MD, MSc

629 **Electromyographic Sensitivity of Peroneus Tertius Relative to Abductor Hallucis in Assessment of Peripheral Neuropathy**
Andrea J. Boon, MD, and C. Michel Harper, MD

633 **A *RYR1* Mutation Associated with Recessive Congenital Myopathy and Dominant Malignant Hyperthermia in Asian Families**
Danielle Carpenter, PhD, Azzam Ismail, FRCPath, Rachel L. Robinson, PhD, Christopher Ringrose, BSc, Patrick Booms, PhD, David E. Iles, PhD, P. Jane Halsall, MBChB, Derek Steele, PhD, Marie-Anne Shaw, PhD, and Philip M. Hopkins, MD, FRCA

640 **Masseter Reflex in the Study of Spinocerebellar Ataxia Type 2 and Type 3**
Antonio García, MD, Silvia Alvarez, MD, Jon Infante, MD, and José Berciano, MD

643 **Dermatomyositis-Like Muscle Pathology in Patients with Chronic Graft-Versus-Host Disease**
Jeffrey A. Allen, MD, Steven A. Greenberg, MD, and Anthony A. Amato, MD

648 **Phenotypic Diversity Associated with the Mitochondrial m.8313G>A Point Mutation**
Killian O'Rourke, MRCPI, Mark R. Buddles, PhD, Michael Farrell, FRCPath, Rachel Howley, BSc, Sunita Sukuraman, MRCPI, Sean Connolly, FRCPI, Douglass M. Turnbull, FRCP, Michael Hutchinson, FRCPI, and Robert W. Taylor, PhD

652 **An Analysis of Disease Severity Based on SMN2 Copy Number in Adults with Spinal Muscular Atrophy**
Bakri Elsheikh, MBBS, MRCP (UK), Thomas Prior, PhD, Xiaoli Zhang, PhD, Robert Miller, MD, Stephen J. Kolb, MD, PhD, Dan Moore, PhD, Walter Bradley, DM, FRCP, Richard Barohn, MD, Wilson Bryan, MD, Deborah Gelinas, MD, Susan Iannaccone, MD, Robert Leshner, MD, Jerry R. Mendell, MD, Michelle Mendoza, PT, Barry Russman, MD, Stephen Smith, MD, Wendy King, PT, and John T. Kissel, MD

CASE OF THE MONTH

657 **Hyaline Inclusion Myopathy: Unmasked by Statin Therapy**
Agnes Supala-Berger, MD, Edward Fine, MD, Reid Heffner, MD, and Eufrosina Young-McLain, MD

REGULAR FEATURES

662 **Letters to the Editor**
668 **Calendar of Events**
669 **AANEM News and Comments**
674 **AANEM 2009 Abstracts**

NOVEMBER 2009

EDITORIAL

751 **Reference Data and Quantile Regression**
Mark Conaway

INVITED REVIEW

753 **Applying Proteomics to the Diagnosis and Treatment of ALS and Related Diseases**
Robert Bowser, PhD, and David Lacomis, MD

MAIN ARTICLES

763 **Developing Reference Data for Nerve Conduction Studies: An Application of Quantile Regression**
Limin Peng, PhD, Joanne Wuu, ScM, and Michael Benatar, MBChB, MS, DPhil

772 **Reference Data for Commonly Used Sensory and Motor Nerve Conduction Studies**
Michael Benatar, MBChB, MS, DPhil, Joanne Wuu, ScM, and Limin Peng, PhD

795 **3,4-Diaminopyridine Is More Effective than Placebo in a Randomized, Double-Blind, Cross-Over Drug Study in LEMS**
Shin J. Oh, MD, Gwendolyn G. Claussen, MD, Yuki Hatanaka, MD, and Marla B. Morgan, MD

801 **Correlation of C3 Level with Severity of Generalized Myasthenia Gravis**
Aidong Liu, MD, Hong Lin, MD, PhD, Yu Liu, MD, Xinsheng Cao, MD, Xianni Wang, MD, and Zhuyi Li, MD, PhD

809 **Standard and Modified Statistical MUNE Evaluations in Spinal-Bulbar Muscular Atrophy**
Tanya J. Lehky, MD, Cheun Ju Chen, MD, Nicholas A. Di Prospero, MD, PhD, Lindsay E. Rhodes, BS, Kenneth Fischbeck, MD, and Mary Kay Floeter, MD, PhD

815 **Evaluation of Dystrophic Dog Pathology by Fat-Suppressed T2-Weighted Imaging**
Masanori Kobayashi, DVM, Akinori Nakamura, MD, PhD, Daisuke Hasegawa, DVM, PhD, Michio Fujita, DVM, PhD, Hiromitsu Orima, DVM, PhD, and Shin'Ichi Takeda, MD, PhD

827 **Group III and IV Muscle Afferent Discharge Patterns after Repeated Lengthening and Shortening Actions**
Vincent Martin, PhD, Erick Dousset, PhD, Jérôme Laurin, MSc, Julien Gondin, PhD, Maxime Gautier, MSc, and Patrick Decherchi, PhD

838 **Changes of Gene Expression in Electrically Stimulated and Contralateral Rat Soleus Muscles**

Aurélio Pimenta, PhD, Renata Gorjão, PhD, Leonardo R. Silveira, PhD, and Rui Curi, PhD

847 **β-Adrenergic Activity Preserves GLUT4 Protein in Glycolytic Fibers in Fasting**
Ana Barbara Teixeira Alves-Wagner, MS, Helayne Soares De Freitas, PhD, Paula Bargi De Souza, BS, Patricia Monteiro Seraphim, PhD, Rosana Cristina Tieko Mori, PhD, and Ubiratan Fabres Machado, PhD

855 **Clinical and Genetic Analysis of Korean Patients with Congenital Insensitivity to Pain with Anhidrosis**
Seung-Tae Lee, MD, Jeehun Lee, MD, PhD, Munhyang Lee, MD, PhD, Jong-Won Kim, MD, PhD, and Chang-Seok Ki, MD, PhD

SHORT REPORTS

860 **Pediatric Monomelic Amyotrophy: Evidence for Poliomyelitis in Vulnerable Populations**
Hugh J. McMillan, MD, MSC, Basil T. Darras, MD, Peter B. Kang, MD, Firas Saleh, MD, and H. Royden Jones, MD

864 **Isolated Posterior Femoral Cutaneous Neuropathy Following Intragluteal Injection**
Jee-Eun Kim, MD, Ji-Hoon Kang, MD, Jay Chol Choi, MD, Jung Seok Lee, MD, and Sa-Yoon Kang, MD

867 **In Vivo Bioluminescent Imaging of Schwann Cells in a Poly(DL-Lactide-ε-Caprolactone) Nerve Guide**
Ming-San Ma, MD, Gooitzen Van Dam, MD, PhD, Marcel Meek, MD, PhD, Erik Boddeke, PhD, and Sjef Copray, PhD

872 **Sciatic Nerve Moneuropathy: An Unusual Late Effect of Radiotherapy**
Pierre-François Pradat, MD, PhD, Pierre Bouche, MD, and Sylvie Delanian, MD, PhD

CASES OF THE MONTH

875 ***Campylobacter Jejuni* Abscess, Encephalomyelitis, and Acute Polyradiculoneuropathy**
Christian Philipp Kamm, MD, Borbala Keserue, MD, Sebastian Humpert, MD, Roland Wiest, MD, Krassen Nedeltchev, MD, Christian Walter Hess, MD, and Marcel Arnold, MD

880 **SOD1 (A4V)-Mediated ALS Presenting with Lower Motor Neuron Facial Diplegia and Unilateral Vocal Cord Paralysis**
Johnny S. Salameh, MD, Nazem Atassi, MD, and William S. David, MD, PhD

883 **Cardiac Pathology Exceeds Skeletal Muscle Pathology in Two Cases of Limb-Girdle Muscular Dystrophy Type 2I**
Marta Margeta, MD, PhD, Anne M. Connolly, MD, Thomas L. Winder, PhD, Alan Pestronk, MD, and Steven A. Moore, MD, PhD

AANEM PRACTICE TOPIC

890 **Consensus Statement: The Use of Intravenous Immunoglobulin in the Treatment of Neuromuscular Conditions Report of the AANEM Ad Hoc Committee**
Peter D. Donofrio, MD, Alan Berger, MD, Thomas H. Brannagan III, MD, Mark B. Bromberg, MD, PhD, James F. Howard, MD, Normal Latov, MD, PhD, Adam Quick, MD, and Rup Tandan, MD

REGULAR FEATURES

901 **Letters to the Editor**

907 **Calendar of Events**

908 **AANEM News and Comments**

DECEMBER 2009

OBITUARIES

915 **Lisa S. Krivackas**
Anthony A. Amato, MD, and Jane Parrish

917 **David D. Kilmer**
Gregory T. Carter, MD

INVITED REVIEWS

918 **Adaptive Change in Electrically Stimulated Muscle: A Framework for the Design of Clinical Protocols**
Stanley Salmons, MSC, PhD

936 **Electrical Impedance Myography: Background, Current State, and Future Directions**
Seward B. Rutkove, MD

MAIN ARTICLES

947 **Safety of Influenza Vaccination in Patients with Myasthenia Gravis: A Population-Based Study**
Lorne Zinman, MD, MSc, Jessica Thoma, BSc, Jeffrey C. Kwong, MD, MSc, Alex Kopp, BA, Thérèse A. Stukel, PhD, and David N. Juurlink, MD, PhD

952 **Determinants of Cognitive Impairment in Elderly Myasthenia Gravis Patients**
Camillo Marra, MD, PhD, Francesca Marsili, MD, Davide Quaranta, MD, and Amelia Evoli, MD

960 **Peripheral Nerve Size in Normals and Patients with Polyneuropathy: An Ultrasound Study**
Craig M. Zaidman, MD, Mohammed Al-Lozi, MD, and Alan Pestronk, MD

967 **Histological Validation of Ultrasound-Guided Neurography in Early Nerve Regeneration**
Johan W. van Neck, PhD, B. Stefan de Kool, J. (Ineke) M. Hekking-Weijma, Erik T. Walbeehm, MD, PhD, Gerhard H. Visser, MD, PhD, and Joleen H. Blok, PhD

976 **Corneal Confocal Microscopy: A Novel Noninvasive Means to Diagnose Neuropathy in Patients with Fabry Disease**
Mitra Tavakoli, PhD, MSc, Andrew Marshall, MRCP, Lorraine Thompson, BSc, Margaret Kenny, BSc, Stephen Waldek, MD, Nathan Efron, PhD, DSc, and Rayaz A. Malik, PhD, FRCP

985 **C-Fiber Function Assessed by the Laser Doppler Imager Flare Technique and Acetylcholine Iontophoresis**
Alistair Q. Green, MBBS, Singhan T. Krishnan, MBBS, MD, and Gerry Rayman, MBBS, MD

992 **Expression of Genes Related to Myostatin Signaling during Rat Skeletal Muscle Longitudinal Growth**
Marcelo S. Aoki, PhD, Antonio G. Soares, Elen H. Miyabara, PhD, Igor L. Baptista, PhD, and Anselmo S. Moriscot, PhD

1000 **Glutamine Preserves Skeletal Muscle Force during an Inflammatory Insult**
Benjamin M. Meador, BA, and Kimberly A. Huey, PhD

1008 **Effects of High-Pass Filtering on MUAP Metrics**
Alexander A. Brownell, MS, and Mark B. Bromberg, MD, PhD

1012 **Prospective Study of Peripheral Neuropathy in Machado–Joseph Disease**
Marcondes C. França Jr., MD, Anelyssa D'Abreu, MD, Anamarli Nucci, MD, PhD, Fernando Cendes, MD, PhD, and Iscia Lopes-Cendes, MD, PhD

1019 **Factors Responsible for Force Steadiness Impairment with Fatigue**
Olivier Missenard, PhD, Denis Mottet, PhD, MD, and Stéphane Perrey, PhD

SHORT REPORTS

1033 **Ultrasonographic Tinel Sign**
Joseph N. Chipman, MD, Ryan T. Mott, MD, Constance A. Stanton, MD, and Michael S. Cartwright, MD

1036 **Hand Construction of Quadrifilar Wire Electrodes for Electromyography**
Omar I. Ahmed, BS, and Rick M. Roark, PhD

1040 **Prolonged Compound Muscle Action Potential Duration in Critical Illness Myopathy**
Brent P. Goodman, MD, C. Michel Harper, MD, and Andrea J. Boon, MD

AANEM MONOGRAPH

1043 **Neuromuscular Diseases Associated with HIV-1 Infection**
Jessica Robinson-Papp, MD, and David M. Simpson, MD

CASES OF THE MONTH

1054 **Patient with Amyloidoma of the Ulnar Nerve and Salivary Glands**
Johnny Salameh, MD, Johanna L. Baran, MD, and Peter Siao Tick Chong, MD

1059 **Camptocormia as a Presentation of Generalized Inflammatory Myopathy**
Sheng-Han Kuo, MD, Mithila Vullaganti, MD, Joohi Jimenez-Shahed, MD, and Justin Y. Kwan, MD

REGULAR FEATURES

1064 **Letters to the Editor**

1074 **Calendar of Events**

1075 **AANEM News and Comments**

ii **Volume 40 Contents**

xi **Volume 40 Author Index**

xxi **Volume 40 Subject Index**

MUSCLE & NERVE

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

AUTHOR INDEX TO VOLUME 40

This index lists, in alphabetical order, the names of authors of all articles and book reviews. Full citation is provided under the first author only, with cross reference to this author made from entries to other authors. Book reviews are distinguished from articles by the letter B after the page number.

A

Abou-Zeid E, Rudnicki SA, Keyrouz SG: Lambert-Eaton myasthenia syndrome following varenicline (Chantix) use, 487
Ahad M, Rutkove S: Multifrequency electrical impedance myography: Alterations in rat sciatic crush, 679
Ahad M, Rutkove SB: The effect of neurogenic injury on the electrical properties of skeletal muscle, 725
Ahdab R, Michel M, Neves DO, Andre C, Lefaucheur JP: Persistent multifocal pseudo-conduction blocks in vasculitic neuropathy without antiganglioside antibodies, 290
Ahmed OI, Roark RM: Hand construction of quadrifilar wire electrodes for electromyography, 1033
Airas L, see zu Hörste GM
Ajroud-Driss S, Sufit R: Appearance of conduction blocksin multifocalmotor neuropathy after intravenous immunoglobulin treatment, 693
Ajroud-Driss S, Wolfe L, Sufit R: Amyotrophic lateral sclerosis and sarcoidosis, 903
Alcuri R, see Xu J
Alexandrov AS, Alexandrov SvA, Muradyan NM, Ishpekova BA: Single and multiple A-waves in patients with Bell's palsy, 692
Alexandrov SvA, see Alexandrov AS
Al-Khodairy AW, see Léger B
Al-Lahham T, Zivkovic S: Focal variant of multifocal motor neuropathy, 691
Allen EJ, see Krishnan C
Allen JA, Greenberg SA, Amato AA: Dermatomyositis-like muscle pathology in patients with chronic graft-versus-host disease, 643
Al-Lozi M, see Zaidman C
Almeida DF, Scremin L, Oh SJ: Focal conduction block in a case of tarsal tunnel syndrome, 689
Alsharabati M, Oh SJ: How common is tarsal tunnel syndrome?, 688
Amato AA, see Allen JA: Salajegheh M
Amato AA, Parrish J: Obituary: Lisa S. Krivackas, 913
American Association of Neuromuscular & Electrodiagnostic Medicine: Diagnostic criteria for late-onset (childhood and adult) Pompe disease, 149
Andary MT, see Kumaraswamy L
Andre C, see Ahdab R
Annaswamy TM, see Bierner SM
Aoki MS, Soares AG, Miyabara EH, Baptista IL, Moriscot AS: Expression of genes related to myostatin signaling during rat skeletal muscle longitudinal growth, 989
Aprile I, see Padua L
Arnold M, see Kamm CP
Asaka T, see Kojima Y
Atassi N, see Salameh JS
Attarian S, Duclos Y, Verschueren A, Franques J, Pouget J: Quantification of ipsilateral corticospinal tract using triple-stimulation in humans: Case report, 729
Avela J, see Piitulainen H

B

Bachmann CG, see Pavlakovic G
Bachrach E, see Perez AL
Baek J, see Choi W
Baer G, Jänttl V: Electrophrenic ventilation, 904
Bagden E, see Perez AL
Baheti NN, see Kuruvilla A
Bahrami M, see Horvat-Mechtler BM
Bailey PW, Boon AJ, Smith J, Hurdle MF, Sorenson EJ, Harper CM: Ultrasound assisted electrophysiologic technique for evaluation of the lateral femoral cutaneous nerve, 717
Baker SK: Characterization of a novel C8 phasic muscle stretch reflex, 529
Baldwin KM, see McCall GE
Bali DS, see Goldstein JL
Baloh RH, see Salajegheh M
Baltgalvis KA, Call JA, Nikas JB, Lowe DA: Effects of prednisolone on skeletal muscle contractility in *mdx* mice, 443
Bandholm T, Rose MH, Sløk R, Sonne-Holm S, Jensen BR: Ankle torque steadiness is related to muscle activation variability and coactivation in children with cerebral palsy, 402
Bangratz M, see Echaniz-Laguna A
Baptista IL, see Aoki MS
Baran JL, see Salameh J
Bargi de Souza P, see Teixeira Alves-Wagner AB
Barker A, see Rao DG
Barohn R, see Elsheikh B
Barros D, see Katzberg H
Barroso FA, de la Fuente MI: Compound muscle action potential temporal dispersion during hypokalemia, 662
Bastianello S, see Pichiecchio A
Bedlack RS, see Qureshi M
Bemadette D, see Zhu X
Benatar M, see Kesner V; Peng L
Benatar M, Wuu J, Peng L: Reference data for commonly used sensory and motor nerve conduction studies, 772
Benavente I, see Gazulla J
Bendszus M, see Melzer N
Beniczky S, see Lukács M
Bent LR, see Lowrey CR
Berger A, see Donofrio PD
Berger MJ, Watson BV, Doherty TJ: M-wave amplitude during voluntary activity: Implications to twitch interpolation, 721
Bernadette D, see Zhu D
Bernaiche MR, see Kumaraswamy L
Bernateck M, see Fischer MJ
Bertorini TE, see O'Carroll PJ
Bezerra P, Zhou S, Crowley Z, Brooks L, Hooper A: Effects of unilateral electromyostimulation superimposed on voluntary training on strength and cross-sectional area, 430
Bhakta D, see Otten RF
Biaggioni I, see Kim T
Bian R, see Lee S
Biering-Sørensen B, Kristensen IB, Kjær M, Biering-Sørensen F: Muscle after spinal cord injury, 499
Biering-Sørensen F, see Biering-Sørensen B
Bierner SM, Annaswamy TM, Chouteau WL: Predictive value of electromyography for response to epidural steroid injection in patients with lumbar radiculopathy, 710

Bi J, see Lu Z
Billars L, see Kesner V
Binder-Macleod SA, see Marion MS
Bird TD, see Carter GT
Black BK, see Kim T
Blok JH, see van Neck JW
Boddeke E, see Ma MS
Bojsen-Moller J, see Mackey AL
Bollu PC, see Sarwal A
Booms P, see Carpenter D
Boon AJ, see Bailey PW; Goodman BP; Schmidt K; Watson JC
Boon AJ, Harper CM: Electromyographic sensitivity of peroneus tertius relative to abductor hallucis in assessment of peripheral neuropathy, 629
Borowy-Borowski H, see Sikorska M
Bottas R, see Piitulainen H
Botter A, see Minetto MA
Bottinelli R, see Canepari M
Bouche P, see Pradat PF
Bowser R, Lacomis D: Applying proteomics to the diagnosis and treatment of ALS and related diseases, 753
Bradley W, see Elsheikh B
Brannagan TH, Olarte MR, Weimer LH, Tanji K: Bortezomib associated demyelinating neuropathy – Nerve biopsy features, 684
Brannagan TH III, see Donofrio PD
Brettschneider J, see Petzold A
Briscoe NK, Mezel MM: Polyglandular autoimmune syndrome type 3 in a patient with ocular myasthenia gravis, 1061
Broccolini A, Gidaro T, Morosetti R, Mirabella M: Hereditary inclusion-body myopathy: Clues on pathogenesis and possible therapy, 340
Bromberg MB, see Brownell AA; Donofrio PD
Brooks BR, see Desai UG
Brooks L, see Bezerra P
Brose SW, Munin MC, Goitz RJ, Stone D, Fischer D: An unusual case of chronic exertional compartment syndrome presenting as diffuse muscle pain: Case report, 735
Brownell AA, Bromberg MB: Effects of high-pass filtering on MUAP metrics, 1005
Brownell AA, Bromberg MB: Optimizing acquisition time in quantitative electromyography, 371
Brown ME, see Cartwright MS
Bryan W, see Elsheikh B
Buddles MR, see O'Rourke K
Bumanlag F, see Knight S; Luo J
Burnett ME, D'Arsigny CL, Webb KA, McBride I, Ouyang J, O'Donnell DE, see Green HJ
Burns T: Distribution of test item scores for the MG-QOL15 for patients with ocular myasthenia gravis, generalized myasthenia gravis and patients in remission, 748
Burns T: Test-retest reliability of the myasthenia gravis composite and MG-QOL15, 747

C

Calandro P, see Granata G
Call JA, see Baltgalvis KA
Campbell CA, Turza KC, Morgan RF: Postoperative outcomes and reliability of "sensation-sparing" sural nerve biopsy, 603
Canepari M, Rossi R, Pansarasa O, Maffei M, Bottinelli R: Actin sliding velocity on pure myosin isoforms from dystrophic mouse muscles, 249
Cao X, see Liu A
Capasso M, see Notturno F
Capasso M, Manzoli C, Uncini A: Management of extreme carpal tunnel syndrome: Evidence from a long-term follow-up study, 86
Cardoso F, see Guanaes LL
Caress JB, see Cartwright MS
Carli L, Montecucco C, Rossetto O: Assay of diffusion of different botulinum neurotoxin type A formulations injected in the mouse leg, 374
Carpenter D, Ismail A, Robinson RL, Ringrose C, Booms P, Iles DE, Halsall PJ, Steele D, Shaw MA, Hopkins PM: A *RYR1* mutation associated with recessive congenital myopathy and dominant malignant hyperthermia in Asian families, 633
Carpo M, see Notturno F
Carrion-Jones MJ, see Sembrano RN
Carter GT: Obituary: David D. Kilmer, 914
Carter GT, Weiss MD, Bird TD: Myotonic disorder without myotonia?, 1068
Cartwright MS, see Chipman JN
Cartwright MS, Brown ME, Eulitt P, Walker FO, Lawson VH, Caress JB: Diagnostic nerve ultrasound in Charcot-Marie-Tooth disease type 1B, 98
Cartwright MS, Walker FO, Caress JB: High resolution ultrasound in amyotrophic lateral sclerosis, 705
Cartwright MS, White DL, Wiesler ER, Chloros GD, Yoon J, Molnar JA, DeFranzo AJ, Walker FO: Median nerve changes following steroid injection for carpal tunnel syndrome, 743
Cendes F, see França Jr MC
Chae SH, see Joo HW
Chagas Barbin IC, see Marques MJ
Chahin N, Sorenson EJ: Serum creatine kinase levels in spinobulbar muscular atrophy and amyotrophic lateral sclerosis, 126
Chai Y, see O'Carroll PJ
Changela M, see Goldstein JL
Chang YS, see Lin JJ
Charifi N, see Mackey AL
Chawla J, see Ramirez-Zamora A
Chawla J, Velicu S: Anticipation with hereditary inclusion body myopathy: An amazing neuromuscular entity: Case report, 716
Chelmicka-Schorr E, see McCoyd MA
Chen CJ, see Lehky TJ
Chen S, Hwang C: Studies of autoantibodies in inflammatory myopathies and myasthenia gravis, 741
Chiocca EA, see Elsheikh B
Chipman JN, Mott RT, Stanton CA, Cartwright MS: Ultrasonographic Tinel sign, 1030
Chkhartishvili D, Natriashvili G: Down syndrome may coexist with spinal muscular atrophy in children, 683
Chkhartishvili D, Natriashvili G: Nerve conduction abnormalities in children with cerebral palsy, 683
Chloros GD, see Cartwright MS
Chobanov Z, see Salameh JS
Cho C, see Katzberg H
Choi I, see Lee S
Choi JC, see Kim JE
Choi S, see Kang S
Choi W, see Kang S
Choi W, Kang S, Baek J: A case of Duchenne muscular dystrophy complicated with complete atrioventricular block: Case report, 713
Chong PST, see Salameh J
Chouteau WL, see Bierner SM
Christoforidis G, see Elsheikh B
Chu H, see Lu Z
Chun ES, see Odderson IR
Chung HT, see Lin JJ
Chung P, see Suh B
Claussen GG, see Oh SJ
Cochrane DJ, Loram ID, Stannard SR, Rittweger J: Changes in joint angle, muscle-tendon complex length, muscle contractile tissue displacement, and modulation of EMG activity during acute whole-body vibration, 420
Cole JL, see Kirschner JS
Collazo-Clavell ML, see Thaisetthawatkul P
Collins DF, see Dean JC
Conaway M: Reference data and quantile regression, 751
Connelly D, see Farrugia M
Connolly AM, see Margeta M
Connolly S, see O'Rourke K
Copray S, see Ma MS
Costa A, see Pichiecchio A
Cottler PS, see Winters TM
Craciun LC, Floeter M: Motor unit number estimation in primary lateral sclerosis, 710
Crowley Z, see Bezerra P
Crozier TA, see Pavlakovic G
Cudkowicz ME, see Qureshi M
Cui L, see Liu M
Curi R, see Pimenta A

D

D'Abreu A, see França Jr MC
Dahani A, see Dahani GS
Dahani GS: Snap, crackle, and pop as a normal insertional activity: Case series, 732
Dahani GS, Syed NA, Dahani A: Marked improvement of hepatitis C associated chronic inflammatory demyelinating polyneuropathy with interferon: Case report, 732
Dai J, see Goldstein JL
Danesino C, see Pichiecchio A
Darras BT, see McMillan HJ
D'Arsigny CL, Webb KA, McBride I, Ouyang J, O'Donnell DE, see Green HJ
Das S, see Nalini A

Daube JR, see Laughlin RS; Milone M; Rubin DI
Daudén E, see Eguren C
Davidson AL, see Lagattuta FP; Martin RJ
David WS, see Salameh JS
Day BL, see Ramdharry GM
Dean JC, Collins DF: Nonlinear twitch torque summation by motor units activated at M-wave and H-reflex latencies, 221
de Carvalho M, Swash M: Stratifying diseases stages with different progression rates determined by electrophysiological tests in patients with amyotrophic lateral sclerosis, 318
Decherchi P, see Martin V
DeFranzo AJ, see Cartwright MS
de Kool BS, see van Neck JW
de la Fuente MI, see Barroso FA
Delanian S, see Pradat PF
Delauretis A, see Notturno F
del Nido P, see Perez AL
Deneri E, see Tataroglu C
Dériaz O, see Léger B
Derry KL, Doherty TJ: The natural history of electrodiagnostic findings for ulnar nerve entrapment, 696
Desai UG, Brooks BR: Autoimmunity subsequent to modafinil use: Dermatomyositis and Sjögren's syndrome, 708
De Sousa EA, see Weinstein AJ
Dhand U, see Sarwal A
Díaz Ley B, see Eguren C
Dickerson GH, see Goldstein JL
Dimberg E, see Whaley NR
Dion E, see Nadaj-Pakleza AA
Dionne A, Parkes A, Engler B, Watson BV, Nicolle MW: Determination of the best electrode position for recording of the diaphragm compound muscle action potential, 37
Di Prospero NA, see Lehky TJ
Doherty TJ, see Berger MJ; Derry KL
Dong H, see Lu Z
Donofrio PD, see Kim T
Donofrio PD, Berger A, Brannagan TH III, Bromberg MB, Howard JF, Latov N, Quick A, Tandan R: Consensus Statement: The use of intravenous immunoglobulin in the treatment of neuromuscular conditions Report of the AANEM Ad Hoc Committee, 890
Dousset E, see Martin V
Dubow SP, see Zimnowodzki S
Duclos Y, see Attarian S
Duffy S, see Zimnowodzki S
Dun NJ, see Luo J
Dyck P, see Thaisetthawatkul P
Dyck PJ, see Kim DK; Kuntz NL; Laughlin RS
Dyck PJB, see Laughlin RS
Dyro FM, see Hangan MF; Karnani R

E

Echaniz-Laguna A, Rene F, Marcel C, Bangratz M, Fontaine B, Loeffler JP, Nicole S: Electrophysiological studies in a mouse model of Schwartz-Jampel syndrome demonstrate muscle fiber hyperactivity of peripheral nerve origin, 55
Edgerton VR, see McCall GE
Edvardsson B, Persson S: Polyneuritis cranialis presenting with severe autonomic dysfunction, 316
Efron N, see Tavakoli M
Eguren C, Díaz Ley B, Daudén E, García-Diez A, Losada M: Peripheral neuropathy in two patients with psoriasis in treatment with infliximab, 488
Eikermann M, see Ginsburg G
Eisen A: Amyotrophic lateral sclerosis—Evolutionary and other perspectives, 297
El-Gengaihy A, see Khan HM; Nasar A
Eliaspour D, see Horvat-Mechtler BM
Elsheikh B, Kissel JT, Christoforidis G, Wicklund M, Kehagias DT, Chiocca EA, Mendell JR: Spinal angiography and epidural venography in juvenile muscular atrophy of the distal arm "Hirayama disease," 206
Elsheikh B, Prior T, Zhang X, Miller R, Kolb SJ, Moore D, Bradley W, Barohn R, Bryan W, Gelinas D, Iannaccone S, Leshner R, Mendell JR, Mendoza M, Russman B, Smith S, King W, Kissel JT: An analysis of disease severity based on SMN2 copy number in adults with spinal muscular atrophy, 652
Engelstad JK, see Kuntz NL; Laughlin RS
Engler B, see Dionne A
Enoka RM, see Staudenmann D
Eom G, see Park B
Erkin G, see Kara M
Eulitt P, see Cartwright MS
Evoli A, see Marra C
Eymard B, see Nadaj-Pakleza AA

F

Fabres Machado U, see Teixeira Alves-Wagner AB
Fan D, see Liu X
Farrell M, see O'Rourke K
Farrugia M, Russell A, Mallik A, Pell A, Connelly D, Stewart W, Longman C: Myosin myopathy: A case report, 707
Farrugia ME, Leite MI, Petty R, Overell J, Mallik A, Vincent A: Do the new cell-based assays help in the diagnosis of bulbar myasthenia?, 747
Ferretti R, see Marques MJ
Figueroa JJ, see Kuntz NL
Fine E, see Supala-Berger A
Fine HA, see Lehky TJ
Fischbeck K, see Lehky TJ
Fischer D, see Brose SW
Fischer MJ, Riedlinger K, Schoser B, Bernateck M: Perceived pain and temporomandibular disorders in neuromuscular diseases, 595
Flaherty L, see Salanga VD
Flanigan KM, see Viollet L
Flint A, see Perez AL
Floeter M, Craciun LC
Floeter MK, see Lehky TJ
Fontaine B, see Echaniz-Laguna A
Forde R, see Ginsburg G
Fornai F, see Pasquali L
Forsman C, see Hsu BH
Forsman CJ, Hsu B, Gutman G, Mayer N, Sridhara C: Isolated anterior division axillary nerve entrapment at the quadrilateral space in a patient with athetoid cerebral palsy: Case report, 734
Foubert-Samier A, Kazadi A, Rouanet M, Vital A, Lagueny A, Tison F, Meissner W: Axonal sensory motor neuropathy in copper-deficient Wilson's disease, 294
Foye PM, see Kirschner JS
França Jr MC, D'Abreu A, Nucci A, Cendes F, Lopes-Cendes I: Prospective study of peripheral neuropathy in Machado-Joseph disease, 1009
Franques J, see Attarian S
Frasca G, see Padua L
Freitas M, see Guanaes LL
Frey M, see Paternostro-Sluga T
Friedman NR, see Viollet L
Frusciante R, see Padua L
Fuchs SI, Sridhara CR, Mayer N: A unique presentation of medial winging of the scapula: Case report, 734
Fujita M, see Kobayashi M
Fukunaga T, see Mitsukawa N
Fukushima K, see Kojima Y

G

Gailey S, see Viollet L
Garces-Sanchez M, see Laughlin RS
García A, Alvarez S, Infante J, Berciano J: Masseter reflex in the study of spinocerebellar ataxia type 2 and type 3, 640
García-Diez A, see Eguren C
Gautam S, see Perry DI
Gautier M, see Martin V
Gayathri N, see Nalini A
Gazulla J, Benavente I, Pérez López-Fraile I, Modrego P, Koenig M: Sensorimotor neuronopathy in ataxia with oculomotor apraxia type 2, 481
Gelinas D, see Elsheikh B
Germani G, see Pichiecchio A
Giacobino JP, see Léger B
Gidaro T, see Broccolini A
Ginsburg G, Forde R, Martyn JAJ, Eikermann M: Increased sensitivity to a nondepolarizing muscle relaxant in a patient with acquired neuromyotonia, 139
Gobelet C, see Léger B
Goitz RJ, see Brose SW
Goldberg G, see Shankar R
Goldstein JL, Young SP, Changela M, Dickerson GH, Zhang H, Dai J, Peterson D, Millington DS, Kishnani PS, Bali DS: Laboratory experience of using dried blood spot assay to diagnose Pompe disease, 708
Goldstein JL, Young SP, Changela M, Dickerson GH, Zhang H, Dai J, Peterson D, Millington DS, Kishnani PS, Bali DS: Screening for Pompe disease using a rapid dried blood spot method: Experience of a clinical diagnostic laboratoory, 32
Gondin J, see Martin V
Goodman BP, see Ross MA; Smith BE
Goodman BP, Boon AJ, Harper C:

Prolonged compound muscle action potential duration in critical illness myopathy, 1037
Goodman BP, Boon AJ, Smith BE, Ross MA, Harper C: Prolonged compound muscle action potential duration in steroid myopathy and cachexia, 718
Gorjão R, see Pimenta A
Goyal N, see Salameh JS
Graf BM, see Pavlakovic G
Granata G, Pazzaglia C, Calandro P, Luigetti M, Martinoli C, Sabatelli M, Padua L: Ultrasound visualization of nerve morphological alteration at the site of conduction block, 1065
Green AQ, Krishnan ST, Rayman G: C-fiber function assessed by the laser Doppler imager flare technique and acetylcholine iontophoresis, 982
Greenberg SA, see Allen JA; Salajegheh M
Green HJ, Burnett ME, D'Arsigny CL, Webb KA, McBride I, Ouyang J, O'Donnell DE: Vastus lateralis Na^+-K^+-ATPase activity, protein, and isoform distribution in chronic obstructive pulmonary disease, 62
Green P, see Vincent A
Gregory TW, see Podnar S
Grisold W, Lahrmann H: The "swimming pool sign" in bilateral phrenic nerve palsy, 677
Grisold W, Vass A, Horwarth-Mechtler B: Sacral plexus lesion with defecation deficit in an os sacrum puncture for bone marrow harvest, 677
Groh WJ, see Otten RF
Guanaes LL, Cardoso F, Freitas M, Nascimento O: Atypical presentation of multifocal motor neuropathy: Brazilian male case report, 674
Guan Y, see Liu M; Zhu X
Gu CN, see Sarwal A
Guffrey DB, see Strakowski JA
Gullapalli RP, see Lovering RM
Gupta D, see Kuruvilla A; O'Carroll PJ
Gutman G, see Forsman CJ

H

Haddad F, see McCall GE
Hadjivassiliou M, see Rao DG
Halsall PJ, see Carpenter D
Hamaguchi H, see Ueda T
Hamaguchi T, see Kojima Y
Hamam W, see Zheng C
Ha N, see Kim J
Hangan MF, Dyro FM: Pectoralis minor entrapment neuropathy masquerading as carpal tunnel syndrome, 687
Hangan MF, Li J: Unilateral polymyositis associated with chronic hepatitis C virus infection: Case report, 712
Han J, see Lee S
Harper CM, see Bailey PW; Boon AJ; Goodman BP
Harris W, Prasad S, Miller T: Diagnosis of Pompe disease among neuromuscular specialists and neurologists, 718
Hasegawa D, see Kobayashi M
Hassan MO, see Puwanant A
Hastings K: Obituary: George Karpati (1934–2009), 169
Hatanaka Y, see Oh SJ
Heffner R, see Supala-Berger A
Hekking-Weijma JIM, see van Neck JW
Henriksson J, see Mackey AL
Herceg M, see Paternostro-Sluga T
Hess CW, see Kamm CP
Hilton-Jones D, see Vincent A
Hirsch NP, see Petzold A
Hobson-Webb LD, Padua L: Median nerve ultrasonography in carpal tunnel syndrome: Findings from two laboratories, 94
Hoffman-Snyder CR, see Smith BE
Holm L, see Mackey AL
Hong J, see Park B
Hooper A, see Bezerra P
Hopkins PM, see Carpenter D
Horvat-Mechtler BM, Mokhtari Rad M, Eliaspour D, Bahrami M: Individual risk factor assessment in patient with carpal tunnel syndrome, 677
Horwarth-Mechtler B, see Grisold W
Howard JF, see Donofrio PD
Howley R, see O'Rourke K
Hsia SH, see Lin JJ
Hsu B, see Forsman CJ
Hsu BH, Forsman C, Weinik M, Sridhara CR: Progressive paresthesias secondary to posterior femoral cutaneous neuropathy, 681
Hsu PS: Myasthenia gravis and levetiracetam: Case report, 739
Huang S: Oxalosis: Electrodiagnostic studies are crucial in assessing patients with new progressive weakness, 680
Huang SQ: Acute myasthenia gravis misdiagnosed as acute Guillain-Barré syndrome in a 15-year-old: Case report, 740
Huey KA, see Meador BM
Hull ML, see Marion MS
Humpert S, see Kamm CP
Hunter RR, see Sarwal A
Hurdle MF, see Bailey PW; Watson JC
Hutchinson M, see O'Rourke K
Hwang C, see Chen S
Hwang MS, see Lin JJ
Hyun JK, see Joo HW

I

Iacob T, see Zivkovic S
Iams A, Strakowski JA, Johnson EW, Pease WS: The "Bactrian sign" as a predictor for carpal tunnel syndrome, 702
Iannaccone E, see Padua L
Iannaccone S, see Elsheikh B
Iida H, Nagasaka T, Shindo K, Shiozawa Z: Effect of the free radical scavenger edaravone on peripheral nerve ischemia-reperfusion injury, 582
Ikeda K, see Kawase Y
Iles DE, see Carpenter D
Illigens BMW, see Perez AL
Ishida C, see Kojima Y
Ishpekova B: Electrophysiological abnormalities in patients of myotonic dystrophy type I, 707
Ishpekova BA, see Alexandrov AS
Isidoro C, see Pasquali L
Ismail A, see Carpenter D
Itoyama Y, see Petzold A
Iverson D, see Layzer R
Iwamoto F, see Lehky TJ
Iwasaki Y, see Kawase Y

J

Jang I, see Lee S
Jänttl V, see Baer G
Jarocka E, see Marusiak J
Jaskólska A, see Marusiak J
Jaskólski A, see Marusiak J
Jeanpierre M, see Nadaj-Pakleza AA
Jenkins J, see Keenan G
Jensen BR, see Bandholm T
Jiang J, see Zheng C
Jimenez-Shahed J, see Kuo SH
Jin K, see Petzold A
Jin X, see Xu J; Zheng C
Johnson E: Needle electromyography, 666
Johnson EW, see Iams A; Strakowski JA
Jones HR, see McMillan HJ
Joo HW, Lee SJ, Chae SH, Hyun JK: Electrophysiologic changes in the rat with cerebral ischemia after constraint induced movement therapy, 737
Jung S, see Kim J
Jun SJ, see Perez AL
Juurlink DN, see Zinman L

K

Kadi F, see Mackey AL; Wåhlin-Larsson B
Kametani F, see Kojima Y
Kamm CP, Keserue B, Humpert S, Wiest R, Nedeltchev K, Hess CW, Arnold M: *Campylobacter jejuni* abscess, encephalomyelitis, and acute polyradiculoneuropathy, 875
Kanda F, see Ueda T
Kanehisa H, see Mitsukawa N
Kang C, see Yoon J
Kang JH, see Kim JE
Kang PB, see McMillan HJ
Kang S, see Choi W
Kang S, Lee S, Choi W, Won Y, Choi S: Relationship between respiratory muscle strength and cardiac function, 714
Kang SY, see Kim JE
Kara M, Kaymak B, Ünsal Malas F, Tiftik T, Yazar F, Erkin G, Özçar L: The purview of multifascicle ulnar nerves in cubital tunnel syndrome: Single-case sonographic observation, 664
Karnani R, Li J, Dyro FM: A fatal case of adult botulism type F: Case report, 739
Kasselman LJ, Shefner JM, Rutkove SB: Motor unit number estimation in the rat tail using a modified multipoint stimulation technique, 115
Katirji B, see Kayal R
Katzberg H, Cho C, So YT, Barros D, Widrow B: Analysis of continuous diaphragm electromyography signal, 726
Katzberg HD, Miller RG, Katz J: Thymic carcinoma in myasthenia gravis developing years after thymectomy, 137
Katz J, see Katzberg HD

Kaufman KR, see Winters TM
Kawakami Y, see Mitsukawa N
Kawase Y, Sato R, Sugiyama K, Ikeda K, Iwasaki Y: Serial electrophysiology of lead induced pure motor neuropathy in a unique case, 676
Kayal R, Katirji B: Atypical deep peroneal neuropathy in the setting of an accessory deep peroneal nerve, 313
Kay K, Small GA: A pain prediction survey for the clinical neurophysiology laboratory, 742
Kaymak B, see Kara M
Kazadi A, see Foubert-Samier A
Keenan G, Jenkins J: Ulnar neuropathy post transposition surgery without preoperative evidence of lesion: A case series, 678
Kehagias DT, see Elsheikh B
Keir G, see Petzold A
Kennelly K, see Whaley NR
Kenny M, see Tavakoli M
Keserue B, see Kamm CP
Kesner V, Billars L, Rye D, Benatar M: Peripheral nerve hyperexcitability in restless legs syndrome, 741
Keyrouz SG, see Abou-Zeid E
Khan AA, see Rao DG
Khan H, see Nasar A
Khan HM, Nasar A, Krivitskaya N, Michas-Martin P, Swaminathan TR, El-Gengaihy A, Yacoub H, Souayah N: Mixed median nerve conduction study: Normative data from side-to-side comparison, 723
Khan HM, Nasar A, Krivitskaya N, Michas-Martin P, Swaminathan TR, El-Gengaihy A, Yacoub H, Souayah N: Nerve conduction studies: Normative data from side-to-side comparison, 723
Khealani BA, see Memon NA
Ki CS, see Lee ST
Kiernan MC, see Krishnan AV
Kieseier BC, see zu Hörste GM
Kim D, see Park D
Kim DH, Yang SN, Lee JH, Lee HJ: Ultrasonographic findings in meralgia paresthetica, 698
Kim DK, Zeldenrust SR, Low PA, Dyck PJ: Quantitative sensation and autonomic test abnormalities in transthyretin amyloidosis polyneuropathy, 363
Kim I, see Lee S
Kim J, Kim M, Ha N, Jung S: Ultrasound findings of compression of the recurrent branch of the median nerve, 678
Kim JE, Kang JH, Choi JC, Lee JS, Kang SY: Isolated posterior femoral cutaneous neuropathy following intragluteal injection, 864
Kim JW, see Lee ST
Kim K, see Yoon J
Kim M, see Kim J
Kim S, see Suh B
Kim T, Peltier AC, Black BK, Raj S, Donofrio PD, Robertson D, Biaggioni I: Coexistent autoimmune autonomic ganglionopathy and myasthenia gravis in non-small cell lung cancer: Case report, 738
Kim Y, see Suh B
Kincaid BR, see Strakowski JA
King W, see Elsheikh B
Kirschner JS, Foye PM, Cole JL: Piriformis syndrome, diagnosis and treatment, 10
Kishnani PS, see Goldstein JL
Kisiel-Sajewicz K, see Marusiak J
Kissel JT, see Elsheikh B
Kiuru-Enari SMK, see Korpela MP
Kjaer M, see Mackey AL
Kjær M, see Biering-Sørensen B
Klein CJ, see Kuntz NL
Knight S, Bumanlag F, Mukerjee R, Sawaya BE, Luo J: Neurophysiologic features of idiopathic hyperhomocysteinemia induced carpal tunnel syndrome, 692
Kobayashi M, Nakamura A, Hasegawa D, Fujita M, Orima H, Takeda S: Evaluation of dystrophic dog pathology by fat-suppressed T2-weighted imaging, 815
Kobessho H, see Ueda T
Koenig M, see Gazulla J
Koh S, see Park B
Kojima Y, Sakai K, Ishida C, Asaka T, Hamaguchi T, Nozaki I, Fukushima K, Tsuchiya A, Kametani F, Yazaki M, Okino S, Yamada M: Hereditary rimmed vacuole myopathy showing interstitial amyloid deposition in muscle tissue, 472
Kolb SJ, see Elsheikh B
Kolokythas O, see Odderson IR
Komi P, see Piitulainen H
Kongsaengdao S, Samintarapanya K, Rusmeechan S, Sithinamsuwan P, Tanprawate S: Electrophysiological diagnosis and patterns of response to treatment of botulism with neuromuscular respiratory failure, 271
Kopp A, see Zinman L
Korpela MP, Paetau A, Löfberg MI, Timonen MH, Lamminen AE, Kiuru-Enari SMK: A novel mutation of the GAA gene in a Finnish late-onset Pompe disease patient: Clinical phenotype and follow-up with enzyme replacement therapy, 143
Kouyoumdjian JA, Stålberg EV: Concentric needle jitter in stimulated orbicularis oculi, 728
Kreisl T, see Lehky TJ
Krishnan AV, Lin CS, Reddel SW, McGrath R, Kiernan MC: Conduction block and impaired axonal function in tick paralysis, 358
Krishnan C, Allen EJ, Williams GN: Torque-based triggering improves stimulus timing precision in activation tests, 130
Krishnan ST, see Green AQ
Kristensen IB, see Biering-Sørensen B
Krivitskaya N, see Khan HM; Nasar A
Kuempfel T, see Pellkofer HL
Kumaraswamy L, Andary MT, Bernaiche MR, O'Connor RC: Effect of hand temperature on electrodiagnostic study of carpal tunnel syndrome, 719
Kunkel LM, see Perez AL
Kuntz NL, Figueroa JJ, Dyck PJ, Engelstad JK, Klein CJ: "Sural sparing" can occur in children with giant axonal neuropathy, 699
Kuo SH, Vullaganti M, Jimenez-Shahed J, Kwan JY: Camptocormia as a presentation of generalized inflammatory myopathy, 1056
Kuruvilla A, Gupta D, Nair M, Baheti NN, Sarma SP: Electrodiagnostic and clinical aspects of Guillain-Barré syndrome: An analysis of 142 cases, 676
Kushner LL: Withdrawal of complement inhibition may lead to recurrence of EAMG-induced weakness, 748
Kwan JY, see Kuo SH
Kwon D, see Park B
Kwong JC, see Zinman L
Kwon H, see Yoon J

L

Lacomis D, see Bowser R
Laforêt P, see Nadaj-Pakleza AA
Lagattuta FP, see Martin RJ
Lagattuta FP, Martin RJ, Tashima DL, Davidson AL, Purcell JP, Noble J: Ultrasound confirmation in the electrodiagnostic muscle examination in the upper limb, 730
Lagueny A, see Foubert-Samier A
Lahrmann H, see Grisold W
Lamminen AE, see Korpela MP
Lanthier P, see Sikorska M
Latov N, see Donofrio PD
Laughlin RS, Garces-Sanchez M, Dyck PJ, Engelstad JK, Norell JE, Dyck PJB: Clinical features and the pathological basis of painless diabetic lumbosacral radiculoplexus neuropathy, 700
Laughlin RS, Spinner RJ, Daube JR: Spinal accessory nerve testing in suspected cases of nerve transection, 725
Laurin J, see Martin V
Lawson VH, see Cartwright MS
Layzer R, Lee HS, Iverson D, Margeta M: Dermatomyositis with inclusion body myositis pathology, 469
Lee HJ, see Kim DH
Lee HS, see Layzer R
Lee J, see Lee ST
Lee JH, see Kim DH
Lee JS, see Kim JE
Lee K, see Yoon J
Lee M, see Lee S; Lee ST
Lee S, see Kang S; Park D
Lee S, Jang I, Sun H, Kim I, Bian R, Han J, Choi I: The clinical usefulness of pharyngeal magnetic motor evoked potential in stroke patients with dysphagia, 728
Lee S, Shin A, Lee M, Yun H, Bian R, Han J, Choi I: The characteristics of brachial plexopathy in tumor patients, 695
Lee SJ, see Joo HW
Lee ST, Lee J, Lee M, Kim JW, Ki CS: Clinical and genetic analysis of Korean patients with congenital insensitivity to pain with anhidrosis, 855
Lefaucheur JP, see Ahdab R
Léger B, Senese R, Al-Khodairy AW, Dériaz O, Gobelet C, Giacobino JP, Russell AP: Atrogin-1, MuRF1, and FoXO, as well as phosphorylated GSK-3β and 4E-BP1 are reduced in skeletal

muscle of chronic spinal cord-injured patients, 69
Lehky TJ, Chen CJ, Di Prospero NA, Rhodes LE, Fischbeck K, Floeter MK: Standard and modified statistical MUNE evaluations in spinal-bulbar muscular atrophy, 809
Lehky TJ, Iwamoto F, Kreisl T, Fine HA, Floeter MK: Electrophysiological findings in a patient treated with tandutinib: Case report, 740
Lehmann HC, see zu Hörste GM
Leite MI, see Farrugia ME; Vincent A
Lekkala M, McNulty NL, Raghavan R, Peterson GW, Tsao BE: Simultaneous onset of myasthenia gravis and granulomatous myositis: Case report, 698
Lekwuwa GU, see Ramdass R
Lennon V, see Ruff RL
Leshner R, see Elsheikh B
Lieber RL, see Winters TM
Li J, see Hangan MF; Karnani R
Li LC, see Sheng JR
Lin CS, see Krishnan AV
Lin H, see Liu A
Lin JJ, Hwang MS, Hsia SH, Chung HT, Chang YS, Lin KL: Pericardial effusion with cardiac tamponae as a cardiac manifestation of Duchenne muscular dystrophy, 476
Lin KL, see Lin JJ
Linnamo V, see Piitulainen H
Lin T, see Lin Y
Lin Y, Lin T: The correlation between uric acid levels and amyotrophic lateral sclerosis, 705
Liu A, Lin H, Liu Y, Cao X, Wang X, Li Z: Correlation of C3 level with severity of generalized myasthenia gravis, 801
Liu M, Cui L, Li X, Guan Y: Utility of single fiber electromyography in early diagnosis of amyotrophic lateral sclerosis accompanied by cervical spondylosis, 704
Liu M, Cui L: Low compound muscle action potential amplitude decreases reproducibility of statistcal motor unit number estimation, 704
Liu X, Fan D: Stratifying diseases stages with different progression rates determined by electrophysiological tests in patients with amyotrophic lateral sclerosis (reply), 319
Liu Y, see Liu A
Li X, see Liu M
Li Y, see Sikorska M
Li Z, see Liu A
Loeffler JP, see Echaniz-Laguna A
Löfberg MI, see Korpela MP
Lo JK: Effect of recording electrode type on waveform parameters in motor nerve conduction studies: Pilot study, 733
Longman C, see Farrugia M
Longone P, see Pasquali L
Lopes-Cendes I, see França Jr MC
Lopshire JC, see Otten RF
Loram ID, see Cochrane DJ
Losada M, see Eguren C
Lovering RM, McMillan AB, Gullapalli RP: Location of myofiber damage in skeletal muscle after lengthening contractions, 589
Lowe DA, see Baltgalvis KA
Low PA, see Kim DK
Lowrey CR, Bent LR: Modulation of the soleus H-reflex following galvanic vestibular stimulation and cutaneous stimulation in prone human subjects, 213
Luigetti M, see Granata G
Lu J, see Xu J
Lukács M, Vécsei L, Beniczky S: Changes in muscle fiber density following a stroke, 722
Lukács M, Vécsei L, Beniczky S: Fiber density of the motor units recruited at high and low force output, 112
Luo J, see Knight S; Lu Z
Luo J, Bumanlag F, Mukerjee R, Sawaya BE, Dun NJ: A study of central conduction in patients with idiopathic hyperhomocysteinemia, 736
Luo J: Is the gold standard always golden? Anti-acetylcholine receptor antibody in diagnosis of myasthenia gravis: Case report, 737
Lu Z, see Zheman X
Lu Z, Bi J, Dong H, Chu H: Diagnostic significance of sensory amplitude in early stage diabetic neuropathy, 675
Lu Z, Luo J, Chu H, Dong H: Prognostic significance of the amyotrophic lateral sclerosis functional rating scale and compound muscle action potential in patients with motor neuron disease, 675
Lu Z, Yan X, Chu H, Dong H: Correlation study of forearm median motor conduction and severity in carpal tunnel syndrome, 674

M

Maccarino S, see O'Carroll PJ
Mackey AL, Kjaer M, Charifi N, Henriksson J, Bojsen-Moller J, Holm L, Kadi F: Assessment of satellite cell number and activity status in human skeletal muscle biopsies, 455
Maffei M, see Canepari M
Mahan JD, see Viollet L
Malik RA, see Tavakoli M
Mallik A, see Farrugia M; Farrugia ME
Ma MS, Van Dam G, Meek M, Boddeke E, Copray S: In vivo bioluminescent imaging of Schwann cells in a poly(DL-lactide-ε-caprolactone) nerve guide, 867
Manalo E, see Sembrano RN
Manzoli C, see Capasso M
Mar A, see Xu J
Maranzana D, see Pichiecchio A
Marcel C, see Echaniz-Laguna A
Margeta M, see Layzer R
Margeta M, Connolly AM, Winder TL, Pestronk A, Moore SA: Cardiac pathology exceeds skeletal muscle pathology in two cases of limb-girdle muscular dystrophy type 2I, 883
Marion MS, Wexler AS, Hull ML, Binder-Macleod SA: Predicting the effect of muscle length on fatigue during electrical stimulation, 573
Marques MJ, Oggiam DS, Chagas Barbin IC, Ferretti R, Santo Neto H: Long-term therapy with deflazacort decreased myocardial fibrosis in *mdx* mice, 466
Marra C, Marsili F, Quaranta D, Evoli A: Determinants of cognitive impairment in elderly myasthenia gravis patients, 949
Marsden JF, see Ramdharry GM
Marshall A, see Tavakoli M
Marsili F, see Marra C
Martinoli C, see Granata G
Martin RJ, see Lagattuta FP
Martin RJ, Lagattuta FP, Tashima DL, Davidson AL, Purcell JP, Noble J: Ultrasound confirmation in the electrodiagnostic muscle examination in the lower limb, 730
Martin V, Dousset E, Laurin J, Gondin J, Gautier M, Decherchi P: Group III and IV muscle afferent discharge patterns after repeated lengthening and shortening actions, 827
Martyn JAJ, see Ginsburg G
Marusiak J, Jaskólska A, Jarocka E, Najwer W, Kisiel-Sajewicz K, Jaskólski A: Electromyography and mechanomyography of elbow agonists and antagonists in Parkinson disease, 240
Massie R, Wong LC, Milone M: Exercise intolerance due to mutation in cytochrome B of complex III, 706
Mayer N, see Forsman CJ; Fuchs SI
McBride I, see Green HJ
McCall GE, Haddad F, Roy RR, Zhong H, Edgerton VR, Baldwin KM: Transcriptional regulation of the myosin heavy chain IIb gene in active rat soleus, 411
McCoyd MA, Soliven B, Pytel P, McNally EM, Chelmicka-Schorr E: Diverse manfiestations of a lamin A/C mutation: Case report, 712
McGowan FX, see Perez AL
McGrath R, see Krishnan AV
McMillan AB, see Lovering RM
McMillan HJ, Darras BT, Kang PB, Saleh F, Jones HR: Pediatric monomelic amyotrophy: Evidence for poliomyelitis in vulnerable populations, 860
McNally EM, see McCoyd MA
McNulty NL, see Lekkala M
Meador BM, Huey KA: Glutamine preserves skeletal muscle force during an inflammatory insult, 997
Meekins GD: Fatal mesenteric ischemia associated with intravenous immunoglobulin: Case report, 745
Meek M, see Ma MS
Meissner W, see Foubert-Samier A
Melzer N, Wessig C, Ulzheimer J, Reiners K, Toyka K, Bendszus M, Stoll G: Distal-symmetric focal inflammatory myopathy distinct from focal myositis and polymyositis, 309
Memon NA, Khealani BA: Long term clinical outcome of patients with Guillain-Barré syndrome in Karachi, 697
Mendell JR, see Elsheikh B; Viollet L
Mendoza M, see Elsheikh B
Menon B, Vengamma B: Guillain-Barré syndrome in children, 700
Meriggioli MN, see Sheng JR
Messina S, see Padua L
Mezel MM, see Briscoe NK

Michaelidou M, see Paternostro-Sluga T
Michas-Martin P, see Khan HM; Nasar A
Michel M, see Ahdab R
Miknevich M, see Shankar R
Miller R, see Elsheikh B
Miller RG, see Katzberg HD
Miller T, see Harris W
Millington DS, see Goldstein JL
Milone M, see Massie R
Milone M, Daube JR: Myotonic disorder without myotonia? (reply), 1070
Minetto MA, Botter A: Elicitability of muscle cramps in different leg and foot muscles, 535
Mirabella M, see Broccolini A
Missenard O, Mottet D, Perrey S: Factors responsible for force steadiness impairment with fatigue, 1016
Mitchell D, see Ramdass R
Mitsukawa N, Sugisaki N, Kanehisa H, Fukunaga T, Kawakami Y: Fatigue-related changes in fascicle-tendon geometry over repeated contractions: Difference between synergist muscles, 395
Mittlbock M, see Paternostro-Sluga T
Miyabara EH, see Aoki MS
Modrego P, see Gazulla J
Moglia A, see Pichiecchio A
Mokhtari Rad M, see Horvat-Mechtler BM
Molnar JA, see Cartwright MS
Montecino-Rodriguez E, see Perez AL
Montecucco C, see Carli L
Monteiro Seraphim P, see Teixeira Alves-Wagner AB
Moon H, see Suh B
Moore D, see Elsheikh B
Moore SA, see Margeta M
Morgan MB, see Oh SJ
Morgan RF, see Campbell CA
Moriscot AS, see Aoki MS
Morosetti R, see Broccolini A
Motomura M, see Ueda T
Mottet D, see Missenard O
Mott RT, see Chipman JN
Mukerjee R, see Knight S; Luo J
Mulders SAM, see Oude Ophuis RJA
Munin MC, see Brose SW; Statham MM
Muradyan NM, see Alexandrov AS
Murray NMF, see Petzold A

N

Nadaj-Pakleza AA, Vincitorio CM, Laforêt P, Eymard B, Dion E, Teijeira S, Vietez I, Jeanpierre M, Navarro C, Stojkovic T: Permanent muscle weakness in McArdle disease, 350
Nagasaka T, see Iida H
Nair M, see Kuruvilla A
Najwer W, see Marusiak J
Nakamura A, see Kobayashi M
Nalini A, Gayathri N, Das S: Sarcoglycanopathies: Clinical and histopathological findings in 66 patients, 703
Nalini A: Phrenic nerve conduction study and pulmonary functionsin sporadic amyotrophic lateral sclerosis, 703
Nam H, see Park D
Narayanaswami P, see Perry DI
Nardin RA, see Perry DI
Nasar A, see Khan HM
Nasar A, Krivitskaya N, Khan H, Michas-Martin P, Swaminathan T, El-Gengaihy A, Yacoub H, Souayah N: National trend in amyotrophic lateral sclerosis requiring mechanical ventilation, 706
Nascimento O, see Guanaes LL
Natriashvili G, see Chkhartishvili D
Navarro C, see Nadaj-Pakleza AA
Nazareno R, see Salajegheh M
Nedeltchev K, see Kamm CP
Neves DO, see Ahdab R
Newsom-Davis J, see Vincent A
Nicole S, see Echaniz-Laguna A
Nicolle MW, see Dionne A
Nikas JB, see Baltgalvis KA
Noble J, see Lagattuta FP; Martin RJ
Norell JE, see Laughlin RS; Thaisetthawatkul P
Notturno F, Capasso M, Delauretis A, Carpo M, Uncini A. Glial fibrillary acidic protein as a marker of axonal damage in chronic neuropathies, 50
Novakova L, Stetkarova I: Distal arthrogryposis associated with myopathy: Case report, 715
Nozaki I, see Kojima Y
Nucci A, see França Jr MC
Nunez A, see Sembrano RN
Nuthakki P, see Zheng C
Nuthakki P, Zhu D, Zhu Y, Qiao K, Weber R: Threshold for soleus H-reflex is lower than for M wave with short duration stimuli to S1 nerve root, 727

O

O'Carroll PJ, Bertorini TE, Chai Y, Gupta D, Maccarino S, Shadle M: Correlation between interference pattern analysis cloud results on electromyography and contralateral muscle biopsies, 722
O'Connor RC, see Kumaraswamy L
Odderson IR, Chun ES, Kolokythas O, Zierler R: Chemodenervation of pectoralis minor improves blod flow in thoracic outlet syndrome: Case report, 733
O'Donnell DE, see Green HJ
Oggiam DS, see Marques MJ
Oh SJ, see Almeida DF; Alsharabati M
Oh SJ, Claussen GG, Hatanaka Y, Morgan MB: 3,4-Diaminopyridine is more effective than placebo in a randomized, double-blind, cross-over drug study in LEMS, 795
Okino S, see Kojima Y
Olarte MR, see Brannagan TH
Orima H, see Kobayashi M
O'Rourke K, Buddles MR, Farrell M, Howley R, Sukuraman S, Connolly S, Turnbull DM, Hutchinson M, Taylor RW: Phenotypic diversity associated with the mitochondrial m.8313G>A point mutation, 648
Ortega EL, see Weinstein AJ
Osuchowski MF, Teener J, Remick D: Noninvasive model of sciatic nerve conduction in healthy and septic mice: Reliability and normative data, 610
Otten RF, Scherschel JA, Lopshire JC, Bhakta D, Pascuzzi RM, Groh WJ: Arrhythmia exacerbation after sodium channel blockade in myotonic dystrophy type 1, 901
Oude Ophuis RJA, Mulders SAM, van Herpen REMA, van de Vorstenbosch R, Wieringa B, Wansink DG: DMPK protein isoforms are differentially expressed in myogenic and neural cell lineages, 545
Ouyang J, see Green HJ
Overell J, see Farrugia ME
Özçar L, see Kara M
Ozkul A, see Tataroglu C

P

Padua L, see Granata G; Hobson-Webb LD
Padua L, Aprile I, Frusciante R, Iannaccone E, Rossi M, Renna R, Messina S, Frasca G, Ricci E: Quality of life and pain in patients with facioscapulohumeral muscular dystrophy, 200
Paetau A, see Korpela MP
Palmu K, see Partanen JV
Pansarasa O, see Canepari M
Paparelli A, see Pasquali L
Papathanasiou ES, Zamba-Papanicolaou E: Electrophysiological evidence of a fourth type of Martin-Gruber anastomosis, 717
Park B, see Yoon J
Park B, Kwon D, Koh S, Eom G, Hong J: Assessment of electromyography reaction time in Parkinson's disease, 731
Park D, Nam H, Lee S, Kim D: A comparison of clinical characteristics and diagnostic studies in patients with carpal tunnel syndrome, 696
Park D, Nam H, Lee S, Kim D: Predictors of clinical characteristics in patients with ulnar neuropathy at the elbow, 695
Parker KC, see Salajegheh M
Parkes A, see Dionne A
Parrish J, see Amato AA
Partanen JV, Palmu K: Different ways of propagation of human end plate spikes in electromyography, 720
Pascuzzi RM, see Otten RF
Pasquali L, Longone P, Isidoro C, Ruggieri S, Paparelli A, Fornai F: Autophagy, lithium, and amyotrophic lateral sclerosis, 173
Paternostro-Sluga T, Michaelidou M, Herceg M, Schuhfried O, Mittlbock M, Frey M: Muscle transfer in facial palsy: Comparing electrophysiological data to video analysis, 746
Pathiraja V, see Sikorska M
Pavlakovic G, Zûchner K, Bachmann CG, Graf BM, Crozier TA, Pavlakovic H: Influence of intrinsic noise generated by a thermotesting device on thermal sensory detection and thermal pain detection thresholds, 257
Pavlakovic H, see Pavlakovic G
Pazzaglia C, see Granata G
Pearson JM, see Robinton JE

Pease WS, see Iams A
Pell A, see Farrugia M
Pellkofer HL, Voltz R, Kuempfel T: Favorble response to rituximab in a patient with anti-VGCC-positive Lambert-Eaton myasthenic syndrome and cerebellar dysfunction, 305
Peltier AC, see Kim T
Peng L, see Benatar M
Peng L, Wuu J, Benatar M: Developing reference data for nerve conduction studies: An application of quantile regression, 763
Perez AL, Bachrach E, Illigens BMW, Jun SJ, Bagden E, Steffen L, Flint A, McGowan FX, del Nido P, Montecino-Rodriguez E, Tidball JG, Kunkel LM: CXCR4 enhances engraftment of muscle progenitor cells, 562
Pérez López-Fraile I, see Gazulla J
Perrey S, see Missenard O
Perry DI, Tarulli AW, Nardin RA, Rutkove SB, Gautam S, Narayanaswami P: Clinical utility of electrodiagnostic studies in the inpatient setting, 195
Persson S, see Edvardsson B
Pestronk A, see Margeta M; Zaidman C
Peterson D, see Goldstein JL
Peterson GW, see Lekkala M
Petty R, see Farrugia ME
Petzold A, Brettschneider J, Jin K, Keir G, Murray NMF, Hirsch NP, Itoyama Y, Reilly MM, Takeda A, Tumani H: CSF protein biomarkers for axonal damage improve prognostic accuracy in the acute phase of Guillain-Barré syndrome, 42
Phillips LH II: Between the covers: This month's main articles, 1
Phillips LH II: From the Editor: July Issue, 4
Pichiecchio A, Poloni GU, Ravaglia S, Ponzio M, Germani G, Maranzana D, Costa A, Repetto A, Tavazzi E, Danesino C, Moglia A, Bastianello S: Enzyme replacement therapy in adult-onset glycogenosis II: Is quantitative muscle MRI helpful?, 122
Piehl Aulin K, see Wåhlin-Larsson B
Piitulainen H, Bottas R, Linnamo V, Komi P, Avela J: Effect of electrode location on surface electromyography changes due to eccentric elbow flexor exercise, 617
Pimenta A, Gorjão R, Silveira LR, Curi R: Changes of gene expression in electrically stimulated and contralateral rat soleus muscles, 838
Pingree MJ, see Watson JC
Pinkus JL, see Salajegheh M
Podnar S, Gregory TW: Motor unit action potential confidence intervals obtained by the same or different investigators, 709
Podnar S: Predictive values of the anal sphincter electromyography, 709
Poloni GU, see Pichiecchio A
Ponzio M, see Pichiecchio A
Pouget J, see Attarian S
Prabhakar BS, see Sheng JR
Pradat PF, Bouche P, Delanian S: Sciatic nerve mononeuropathy: An unusual late effect of radiotherapy, 872
Prasad S, see Harris W
Prior T, see Elsheikh B
Pulst SM, see Sikorska M
Purcell JP, see Lagattuta FP; Martin RJ
Puwanant A, Hassan MO, Ubogu EE: Mitochondrial electron transport chain complex II and III deficiency myopathy: Case report, 711
Pytel P, see McCoyd MA
Pyun S, see Yoon J

Q

Qiao K, see Nuthakki P; Zhu D; Zhu X
Quaranta D, see Marra C
Quick A, see Donofrio PD
Qureshi M, Bedlack RS, Cudkowicz ME: Lyme disease serology in amyotrophic lateral sclerosis, 626

R

Raghavan R, see Lekkala M
Raha S, see Sikorska M
Rai A, see Sarwal A
Raj S, see Kim T
Ramdass R, Lekwuwa GU, Mitchell D: Diaphragmatic involvement without bulbar dysfunction or features to suggest amyotrophic lateral sclerosis in brachial amyotrophic diplegia, 1063
Ramdharry GM, Day BL, Reilly MM, Marsden JF: Hip flexor fatigue limits walking in Charcot-Marie-Tooth disease, 103
Ramirez-Zamora A, Chawla J: Peripheral nervous system neurolymphomatosis: A rare entity, 693
Rao DG, Barker A, Hadjivassiliou M, Khan AA: Deep brain stimulation: Beware during electrodiagnostic studies: Case reports, 721
Rao DG, Hadjivassiliou M: Sensory neuronopathy due to gluten sensitivity, 684
Ravaglia S, see Pichiecchio A
Raychev R, see Rezania K
Rayman G, see Green AQ
Recchia A: Carpal tunnel syndrome – A neurophysiological evaluation after bariatric surgery, 690
Recchia A: Coexistence between carpal tunnel syndrome and Cavanagh's syndrome, 690
Reddel SW, see Krishnan AV
Reilly MM, see Petzold A; Ramdharry GM
Reiners J, see zu Hörste GM
Reiners K, see Melzer N
Remick D, see Osuchowski MF
Rene F, see Echaniz-Laguna A
Renna R, see Padua L
Repetto A, see Pichiecchio A
Rezania K, Raychev R, Soliven B: Myelin protein zero mutation presenting as a multifocalneuropathy and central nervous system demyelinating disease, 694
Rhodes LE, see Lehky TJ
Ribecco-Lutkiewicz M, see Sikorska M
Ricci E, see Padua L
Riedlinger K, see Fischer MJ
Ringrose C, see Carpenter D
Rittweger J, see Cochrane DJ
Roark RM, see Ahmed OI
Robertson D, see Kim T
Robinson-Papp J, Simpson DM: Neuromuscular diseases associated with HIV-1 infection, 1040
Robinson RL, see Carpenter D
Robinton JE, Seidner AL, Pearson JM: Evaluation of the medical usefulness of electrodiagnostic reports by physicians not prequalified to meet set standards, 742
Rose MH, see Bandholm T
Rosen CA, see Statham MM
Rossetto O, see Carli L
Rossi M, see Padua L
Rossi R, see Canepari M
Ross MA, see Goodman BP; Smith BE
Ross MA, Smith BE, Goodman BP: Severe carpal tunnel syndrome: When all is lost-needle recording works, 729
Rouanet M, see Foubert-Samier A
Roy RR, see McCall GE
Rubin DI, see Smith BE
Rubin DI, Daube JR: Needle electromyography (reply), 666
Rudnicki SA, see Abou-Zeid E
Rudroff T, see Staudenmann D
Ruff RL, Lennon V: How myasthenia gravis alters the safety factor for neuromuscular transmission, 749
Ruggieri S, see Pasquali L
Rusmeechan S, see Kongsaengdao S
Russell A, see Farrugia M
Russell AP, see Léger B
Russman B, see Elsheikh B
Rutkove SB, see Ahad M; Kasselman LJ; Perry DI
Rutkove SB: Electrical impedance myography: Background, current state, and future directions, 933
Ryan M, see Shankar R
Rye D, see Kesner V

S

Sabatelli M, see Granata G
Sair A, see Tataroglu C
Sakai K, see Kojima Y
Salajegheh M, Pinkus JL, Nazareno R, Amato AA, Parker KC, Greenberg SA: Nature of "tau" immunoreactivity in normal myonuclei and inclusion body myositis, 520
Salajegheh M, Pinkus JL, Taylor JP, Amato AA, Nazareno R, Baloh RH, Greenberg SA. Sarcoplasmic redistribution of nuclear TDP-43 in inclusion body myositis, 19
Salameh J, Baran JL, Chong PST: Patient with amyloidoma of the ulnar nerve and salivary glands, 1051
Salameh J, Souayah N, Siao P: Role of maximum voluntary contraction in the diagnosis of primary demyelinating polyneuropathy: Case report, 680
Salameh JS, Atassi N, David WS: SOD1

(A4V)-mediated ALS presenting with lower motor neuron facial diplegia and unilateral vocal cord paralysis, 880
Salameh JS, Goyal N, Stashuk DW, Tiryaki E, Chobanov Z, David WS: Comparing standard single fiber electromyography and decomposition generated jitter, 738
Salanga VD, Flaherty L: Trigeminal somatosensory evoked potentials in trigeminal neuralgia, 735
Saleh F, see McMillan HJ
Salmons S: Adaptive change in electrically stimulated muscle: A basis for the design of clinical protocols, 915
Samintarapanya K, see Kongsaengdao S
Sanders DB, see Stålberg EV
Sandhu JK, see Sikorska M
Santo Neto H, see Marques MJ
Sarma SP, see Kuruvilla A
Sarr MG, see Thaisetthawatkul P
Sarwal A, Hunter RR, Gu CN, Bollu PC, Singh N, Dhand U: Tacrolimus associated peripheral neuropathy, 697
Sarwal A, Singh N, Rai A: Dorsal ulnar cutaneous neuropathy: Case report and review of literature, 698
Sato R, see Kawase Y
Sawaya BE, see Knight S; Luo J
Scherschel JA, see Otten RF
Schmidt K, Boon AJ: Accuracy of an automated nerve conduction study device in unilateral leg symptoms, 720
Schoser B, see Fischer MJ
Schuhfried O, see Paternostro-Sluga T
Scremin L, see Almeida DF
Seidner AL, see Robinton JE
Sembrano RN, Carrion-Jones MJ, Weiss R, Wong D, Nunez A, Manalo E, Stocks CE: Relationship between median nerve cross sectional area and body mass index, 691
Senese R, see Léger B
Sepulveda GS, see Winters TM
Serban V: Chronic progressive oro-facial-pharyngeal neuropathy with GQ1b antibodies, 685
Serban V: Immunomodulation for anti-myelin-associated glycoprotein polyneuropathy: Case report, 743
Shadle M, see O'Carroll PJ
Shankar R, Shankar V, Miknevich M, Goldberg G, Ryan M, Stuart C: Effects of hand position in the measurement of 14 cm for a median sensory study, 724
Shankar V, see Shankar R
Shaw MA, see Carpenter D
Shefner JM, see Kasselman LJ
Sheng JR, Li LC, Prabhakar BS, Meriggioli MN: Acetylcholine receptor-α subunit expression in myasthenia gravis: A role for the autoantigen in pathogenesis?, 279
Shields RW: Levofloxicin induced small fiber neuropathy, 687
Shim D, see Suh B
Shin A, see Lee S
Shindo K, see Iida H
Shiozawa Z, see Iida H
Siao P, see Salameh J
Sikorska M, Sandhu JK, Simon DK, Pathiraja V, Sodja C, Li Y, Ribecco-Lutkiewicz M, Lanthier P, Borowy-Borowski H, Upton A, Raha S, Pulst SM, Tarnopolsky MA: Identification of ataxia-associated mtDNA mutations (m.4052T>C and m.9035T>C) and evaluation of their pathogenicity in transmitochondrial cybrids, 381
Silveira LR, see Pimenta A
Sim K, see Yoon J
Simon DK, see Sikorska M
Simpson DM, see Robinson-Papp J
Singh N, see Sarwal A
Sithinamsuwan P, see Kongsaengdao S
Sløk R, see Bandholm T
Small GA, see Kay K
Smelan C, see Zimnowodzki S
Smith BE, see Goodman BP; Ross MA
Smith BE, Hoffman-Snyder CR, Rubin DI, Ross MA, Goodman BP: Nerve conduction studies alone are not enough, 724
Smith J, see Bailey PW
Smith S, see Elsheikh B
Soares AG, see Aoki MS
Soares de Freitas H, see Teixeira Alves-Wagner AB
Sodja C, see Sikorska M
Soliven B, see McCoyd MA; Rezania K
Sonne-Holm S, see Bandholm T
Sorenson EJ, see Bailey PW; Chahin N
Souayah N, see Khan HM; Nasar A; Salameh J
So YT, see Katzberg H
So YT: The value of electromyography: Toward an evidence-based use of electrodiagnostic testing, 171
Spinner RJ, see Laughlin RS
Sridhara C, see Forsman CJ
Sridhara CR, see Fuchs SI; Hsu BH
Stålberg EV, see Kouyoumdjian JA
Stålberg EV, Sanders DB: Jitter recordings with concentric needle electrodes, 331
Stannard SR, see Cochrane DJ
Stanton CA, see Chipman JN
Stashuk DW, see Salameh JS
Statham MM, Munin MC, Rosen CA: Electromyographic laryngeal synkinesis alters prognosis in vocal fold paralysis, 689
Staudenmann D, Rudroff T, Enoka RM: Pronation-supination torque and associated electromyographic activity varies during a sustained elbow flexor contraction but does not influence the time to task failure, 231
Steele D, see Carpenter D
Steffen L, see Perez AL
Stetkarova I, see Novakova L
Stewart W, see Farrugia M
Stocks CE, see Sembrano RN
Stojkovic T, see Nadaj-Pakleza AA
Stoll G, see Melzer N
Stone D, see Brose SW
Strakowski JA, see Iams A
Strakowski JA, Kincaid BR, Guffrey DB, Johnson EW: The use of high frequency ultrasound in distinguishing an intraneural tumor from carpal tunnel syndrome: A case report, 702
Stuart C, see Shankar R
Stukel TA, see Zinman L
Sufit R, see Ajroud-Driss S
Sugisaki N, see Mitsukawa N
Sugiyama K, see Kawase Y
Suh B, Chung P, Moon H, Kim Y, Shim D, Kim S: Pulse-wave velocity and nerve conduction study in diabetic patients, 679
Sukuraman S, see O'Rourke K
Sun H, see Lee S
Supala-Berger A, Fine E, Heffner R, Young-McLain E: Hyaline inclusion myopathy: Unmasked by statin therapy, 657
Suputtitada A: Sensitivity of distal median sensory latency of middle finger in early detection of carpal tunnel syndrome, 701
Swaminathan T, see Nasar A
Swaminathan TR, see Khan HM
Swash M, see de Carvalho M
Syed NA, see Dahani GS

T

Takeda A, see Petzold A
Takeda S, see Kobayashi M
Tandan R, see Donofrio PD; Verma A
Tanji K, see Brannagan TH
Tanprawate S, see Kongsaengdao S
Tarnopolsky MA, see Sikorska M
Tarulli AW, see Perry DI
Tashima DL, see Lagattuta FP; Martin RJ
Tataroglu C, Deneri E, Ozkul A, Sair A, Yaycioglu S: Adductor T reflex abnormalities in patients with decreased patellar reflexes, 264
Tavakoli M, Marshall A, Thompson L, Kenny M, Waldek S, Efron N, Malik RA: Corneal confocal microscopy: A novel noninvasive means to diagnose neuropathy in patients with Fabry disease, 973
Tavazzi E, see Pichiecchio A
Tavee JO, see Ui JC
Taylor JP, see Salajegheh M
Taylor RW, see O'Rourke K
Teener J, see Osuchowski MF
Teijeira S, see Nadaj-Pakleza AA
Teixeira Alves-Wagner AB, Soares de Freitas H, Bargi de Souza P, Monteiro Seraphim P, Tieko Mori RC, Fabres Machado U: β-Adrenergic activity preserves GLUT4 protein in glycolytic fibers in fasting, 847
Thaisetthawatkul P, Collazo-Clavell ML, Sarr MG, Norell JE, Dyck P: Good nutritional control may prevent polyneuropathy after bariatric surgery, 745
Thoma J, see Zinman L
Thompson L, see Tavakoli M
Thornton DJ, see Viollet L
Tidball JG, see Perez AL
Tieko Mori RC, see Teixeira Alves-Wagner AB
Tiftik T, see Kara M
Timonen MH, see Korpela MP
Tiryaki E, see Salameh JS
Tison F, see Foubert-Samier A
Toyka K, see Melzer N
Tsao BE, see Lekkala M
Tsuchiya A, see Kojima Y
Tumani H, see Petzold A
Turnbull DM, see O'Rourke K
Turza KC, see Campbell CA

U

Ubogu EE, see Puwanant A
Ubogu EE, Yosef N, Xia RH: Electrophysiological pathologic correlations in murine experimental autoimmune hepatitis, 686
Ueda T, Kanda F, Kobessho H, Hamaguchi H, Motomura M: "Dropped head syndrome" caused by Lambert-Eaton myasthenic syndrome, 134
Ui JC, Tavee JO: Monoclonal gammopathy of undetermined significance and neuropathy, 694
Ulfberg J, see Wåhlin-Larsson B
Ulzheimer J, see Melzer N
Uncini A, see Capasso M; Notturno F
Ünsal Malas F, see Kara M
Upton A, see Sikorska M

V

Van Dam G, see Ma MS
van de Vorstenbosch R, see Oude Ophuis RJA
van Herpen REMA, see Oude Ophuis RJA
van Neck JW, de Kool BS, Hekking-Weijma JIM, Walbeehm ET, Visser GH, Blok JH: Histological validation of ultrasound-guided neurography in early nerve regeneration, 964
Vass A, see Grisold W
Vécsei L, see Lukács M
Velicu S, see Chawla J
Vengamma B, see Menon B
Verma A, Tandan R: TDP-43: A reliabile immunohistochemistry marker for inclusion body myositis?, 8
Verschueren A, see Attarian S
Vietez I, see Nadaj-Pakleza AA
Vincent A, see Farrugia ME
Vincent A, Leite MI, Green P, Newsom-Davis J, Hilton-Jones D: Clinical and serological characteristics of late-onset myasthenia gravis in the United Kingdom, 746
Vincitorio CM, see Nadaj-Pakleza AA
Viollet L, Gailey S, Thornton DJ, Friedman NR, Flanigan KM, Mahan JD, Mendell JR: Utility of cystatin C to monitor renal function in Duchenne muscular dystrophy, 438
Visser GH, see van Neck JW
Vital A, see Foubert-Samier A
Voltz R, see Pellkofer HL
Vullaganti M, see Kuo SH

W

Wåhlin-Larsson B, Ulfberg J, Piehl Aulin K, Kadi F: The expression of vascular endothelial growth factor in skeletal muscle of patients with sleep disorders, 556
Walbeehm ET, see van Neck JW
Waldek S, see Tavakoli M
Walker FO, see Cartwright MS
Walting P, Armon C: Multiple myocardial infarctions in the setting of plasma exchange for myasthenia gravis: Case report, 744
Wang X, see Liu A
Wansink DG, see Oude Ophuis RJA
Ward SR, see Winters TM
Watson BV, see Berger MJ; Dionne A
Watson JC, Pingree MJ, Boon AJ, Hurdle MF: A novel ultrasound-guided proximal saphenous nerve conduction study, 731
Webb KA, McBride I, Ouyang J, O'Donnell DE, see Green HJ
Weber R, see Nuthakki P; Xu J; Zheng C; Zhu D; Zhu X
Weimer LH, see Brannagan TH
Weinik M, see Hsu BH
Weinstein AJ, Ortega EL, De Sousa EA: Chronic inflammatory demyelinating polyneuropathy in a patient with natural killer cell leukemia, 685
Weiss MD, see Carter GT
Weiss MD: Uncommon phenotypes of amyotrophic myopathy: Case report, 714
Weiss R, see Sembrano RN
Wessig C, see Melzer N
Wexler AS, see Marion MS
Whaley NR, Kennelly K, Dimberg E: Laryngeal myotonia in paramyotonia congenita: Case report, 712
White DL, see Cartwright MS
Wicklund M, see Elsheikh B
Widrow B, see Katzberg H
Wieringa B, see Oude Ophuis RJA
Wiesler ER, see Cartwright MS
Wiest R, see Kamm CP
Williams GN, see Krishnan C
Winder TL, see Margeta M
Winters TM, Sepulveda GS, Cottler PS, Kaufman KR, Lieber RL, Ward SR: Correlation between isometric force and intramuscular pressure in rabbit tibialis anterior muscle with an intact anterior compartment, 79
Wolfe L, see Ajroud-Driss S
Wong D, see Sembrano RN
Wong LC, see Massie R
Won Y, see Kang S
Wuu J, see Benatar M; Peng L

X

Xia RH, see Ubogu EE
Xu J, see Zhu D
Xu J, Alcuri R, Mar A, Lu J, Jin X, Zhu D, Weber R, Zhu Y: Digital nerve somatosensory evoked potentials are not affected with over 70 percent of sensory axonal loss, 736

Y

Yacoub H, see Khan HM; Nasar A
Yamada M, see Kojima Y
Yang SN, see Kim DH
Yan X, see Lu Z
Yaycioglu S, see Tataroglu C
Yazaki M, see Kojima Y
Yazar F, see Kara M
Yoon J, see Cartwright MS
Yoon J, Kwon H, Pyun S, Kim K, Kang C: Three dimensional ultrasonography in carpal tunnel syndrome, 682
Yoon J, Park B, Lee K, Sim K: Feasibility of ultrasound area ratio after surgery in carpal tunnel syndrome, 683
Yosef N, see Ubogu EE
Younger APJ, see Younger DS
Younger DS: Sarcoidosis associated painful small fiber neuropathy and dysautonomia, 681
Younger DS, Younger APJ: Orbital myositis: A histologically proven patient: Case report, 713
Young-McLain E, see Supala-Berger A
Young SP, see Goldstein JL
Yun H, see Lee S
Yu S, see Zheman X

Z

Zaidman C, Al-Lozi M, Pestronk A: Peripheral nerve size in normals and patients with polyneuropathy: An ultrasound study, 957
Zamba-Papanicolaou E, see Papathanasiou ES
Zeldenrust SR, see Kim DK
Zhang H, see Goldstein JL
Zhang X, see Elsheikh B
Zheman X, Lu Z, Yu S: Modulation of nicotinic acetylcholine receptors in sympathetic neuron by ethanol, 716
Zheng C, Hamam W, Nuthakki P, Jin X, Zhu D, Jiang J, Zhu Y, Weber R: The H-reflex of biceps remoris muscle in S1 radiculopathy, 726
Zhong H, see McCall GE
Zhou S, see Bezerra P
Zhu D, see Nuthakki P; Xu J; Zheng C; Zhu X
Zhu D, Bernadette D, Qiao K, Xu J, Weber R, Zhu Y: Masking by vibration to Achilles tendon reduces size of S1 nerve action potential in humans, 727
Zhu X, Bemadette D, Zhu Y, Zhu D, Qiao K, Guan Y, Weber R, Zou H: Muscle afferent somatosensory evoked potentials by magnetic stimulation of quadriceps, 715
Zhu Y, see Nuthakki P; Xu J; Zheng C; Zhu D; Zhu X
Zierler R, see Odderson IR
Zimnowodzki S, Dubow SP, Duffy S, Smelan C: Comparison of skin temperature between dorsum of the hand and the digits, 719
Zinman L, Thoma J, Kwong JC, Kopp A, Stukel TA, Juurlink DN: Safety of influenza vaccination in patients with myasthenia gravis: A population-based study, 944
Zivkovic S, see Al-Lahham T
Zivkovic S, Iacob T: Respiratory failure in patients with chronic inflammatory demyelinating polyneuropathy, 688
Zou H, see Zhu X
Züchner K, see Pavlakovic G
zu Hörste GM, Reiners J, Lehmann HC, Airas L, Kieseier BC: CD73 is expressed on invading T lymphocytes in the inflamed peripheral nerve, 287

MUSCLE & NERVE

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

SUBJECT INDEX TO VOLUME 40

This index gives the first page of the article in which the indexed subject occurs.

A

A-waves, 692
Abductor hallucis, 629
Abscess, 875
Accessory deep peroneal nerves, 313
Acetylcholine iontophoresis, 982
Acetylcholine receptor-α, 279
Acetylcholine receptor antibody, 737
Acetylcholine receptors, 716
Achilles tendon, 727
Acid α-glucosidase (GAA), 32, 143, 149
Acid maltase deficiency, 32, 143, 149
Actin sliding velocity, 249
Action potential, 727
Activation tests, 130
Activity-dependent-conduction block, 679
Adductor reflex, 264
β-Adrenergic activity, 847
Adult-onset glycogenosis II, 122
American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) Ad Hoc Committee, 890
Amyloid deposition, 472
Amyloid myopathy, 714
Amyloidoma, 1051
Amyotrophic diplegia, 1063
Amyotrophic lateral sclerosis, 126, 173, 297, 318, 319, 626, 703, 704, 705, 706, 753, 880, 903, 1063
Amyotrophic Lateral Sclerosis Functional Rating Scale (ALSFRS), 675
Anal sphincter electromyography, 709
Angiography, 206
Anhidrosis, 855
Animal models, 55, 79, 115, 249, 374, 411, 443, 466, 610, 679, 686, 737, 815, 838, 989
Ankle, 402
Anterior division axillary nerve entrapment, 734
Anti-acetylcholine receptor antibody, 737
Anti-myelin-associated glycoprotein polyneuropathy, 743
Antiganglioside antibodies, 290
Arrhythmia, 901
Asian families, 633
Ataxia, 381, 481
Athetoid cerebral palsy, 734
Atrioventricular block, 713
Atrogin-1, 69
Autoantibodies, 741
Autoantigen, 279
Autoimmune autonomic ganglionopathy, 738
Autoimmune neuritis, 686
Autoimmunity, 708
Automated nerve conduction studies, 720
Autonomic dysfunction, 316
Autonomic testing, 363
Autophagy, 173
A4V, 880
Axillary nerve entrapment, 734
Axonal damage, 50
Axonal function, 358
Axonal sensory motor neuropathy, 294

B

Bactrian sign, 702
Bariatric surgery, 690, 745
Bell's palsy, 692
Biceps femoris muscle, 726
Bilateral phrenic nerve palsy, 677
Bioluminescent imaging, 867
Blood flow, 733
Body mass index, 691
Body temperature, 719
Bone marrow harvest, 677
Bortezomib, 684
Botulinum neurotoxin type A, 374
Botulism, 271
Botulism type F, 739
Brachial amyotrophic diplegia, 1063
Brachial plexopathy, 695
Brain, 545
Brazil, 674
Bulbar myasthenia, 747

C

C-fiber, 982
C8 muscle stretch reflex, 529
Cachexia, 718
Calcium channels, 305
Camptocormia, 1056
Campylobacter jejuni abscess, 875
Carcinoma, 137
Cardiac function, 714
Cardiac tamponade, 476
Carpal tunnel syndrome, 86, 94, 674, 677, 682, 683, 687, 690, 692, 696, 701, 702, 719, 724, 729, 743
Cavanagh's syndrome, 690
CD73, 287
Cell-based assays, 747
Central nervous system demyelinating disease, 694
Cerebellar dysfunction, 305
Cerebral ischemia, 737
Cerebral palsy, 402, 683, 734
Cerebrospinal fluid, 42
Cervical spondylosis, 704
Chantix (varenicline), 486
Charcot-Marie-Tooth disease, 103
Charcot-Marie-Tooth disease type 1B, 98
Chemokine receptor CXCR4, 562
Children, 402, 683, 699, 700, 860
Chronic exertional compartment syndrome, 735
Chronic graft-versus-host disease, 643
Chronic inflammatory demyelinating polyneuropathy, 685, 688, 732
Chronic neuropathy, 50
Chronic obstructive pulmonary disease, 62
Chronic progressive oro-facial-pharyngeal neuropathy, 685
Chronic spinal cord injury, 69
Clinical protocols, 915
Clinical utility, 195
Cognitive impairment, 949
Complement component C3, 801
Complement inhibition, 748
Complex III, 706
Compound muscle action potential (CMAP), 37, 662, 675, 718, 1037
Concentric needle electrodes, 331
Confocal microscopy, 973
Congenital myopathy, 633
Constraint-induced movement therapy, 737
Contraction, 231, 240, 395
Copper deficiency, 294
Corticospinal tract, 729
Cramps, 535
Creatine kinase, 126
Critical illness myopathy, 1037
Cubital tunnel syndrome, 664
Cutaneous neuropathy, 681, 698
Cutaneous stimulation, 213
CXCR4, 562
Cybrids, 381
Cystatin C, 438
Cytochrome B, 706

D

Data acquisition, 371
Deep brain stimulation, 721
Deep peroneal neuropathy, 313
Deep tendon reflexes, 529
Defecation deficit, 677
Deflazacort, 466
Demyelinating disease, 694
Demyelinating neuropathy, 684
Demyelinating polyneuropathy, 679, 685, 688
Dermatomyositis, 469, 643, 708
Diabetes, 679
Diabetic lumbosacral radiculoplexus neuropathy, 700
Diabetic neuropathy, 675
3,4-Diaminopyridine, 795
Diaphragm, 37, 1063
Diaphragm electromyography, 726
Digital nerve somatosensory evoked potentials, 736
Distal arm, 206
Distal arthrogryposis, 715
Distal-symmetric focal inflammatory myopathy, 309
Doppler imaging, 982
Dorsal ulnar cutaneous neuropathy, 698
Dried blood spot assay, 32, 708
Dropped head syndrome, 134
Drug sensitivity, 139
Duchenne muscular dystrophy, 438, 476, 713, 815
Dysautonomia, 681
Dysphagia, 728

E

Edaravone, 582
Elbow, 695
Elbow extensor, 240
Elbow flexor, 240, 617
Elbow flexor contraction, 231
Elbow joint, 240
Elderly, 949
Electrical impedance myography, 933
Electrical stimulation, 535, 573, 838, 915
Electrode location, 617
Electrodes, 1033
Electrodiagnosis, 37
Electrodiagnostic testing, 171, 195, 678, 679, 696, 719, 721, 730, 742
Electromyography, 171, 195, 231, 240, 371, 420, 617, 629, 666, 689, 704, 709, 710, 720, 722, 726, 738, 1033
Electromyography reaction, 731
Electromyostimulation, 430, 535
Electrophrenic ventilation, 904
Electrophysiological abnormalities, 707, 737, 740, 746
Electrophysiological testing, 318, 319, 717
Encephalomyelitis, 875
End plate spikes (EPSs), 720
Enzyme replacement therapy, 122, 143
Epidural steroid injection, 710
Epidural venography, 206
Ethanol, 716
Eukaryotic initiation factor 4E-binding protein 1 (4E-BP1), 69
Evidence-based medicine, 171
Evolution, 297
Exercise, 617
Exercise intolerance, 706, 711
Experimental autoimmune myasthenia gravis, 748
Experimental autoimmune neuritis, 686
Extreme carpal tunnel syndrome, 86

F

Fabry disease, 973
Facial diplegia, 880
Facial palsy, 746
Facioscapulohumeral muscular dystrophy, 200
Fascicle-tendon geometry, 395
Fasting, 847
Fat suppression, 815
Fatigue, 103, 395, 573, 1016
Femoral cutaneous neuropathy, 681
Fibe density, 112
Fibrosis, 466
Filtering, 1005
Flexor contraction, 231
Focal conduction block, 689
Focal inflammatory myopathy, 309
Focal myositis, 309
Foot muscles, 535
Force outputs, 112
Force steadiness impairment, 1016
Forearm median motor conduction, 674
Forkhead transcription factor FoXO, 69
Functional electrical stimulation, 573

G

Galvanic vestibular stimulation, 213
Gammopathy, 694
Gene expression, 838, 989
Gene mutations, 143, 381, 633, 648, 694, 706, 712
Gene regulation, 411
Generalized inflammatory myopathy, 1056
Generalized myasthenia gravis, 801
Genetic analysis, 855
Geriatrics, 949
Giant axonal neuropathy, 699
Glial fibrillary acidic protein, 50
Glucose transporter 4 (GLUT4), 847
Glutamine, 997
Gluten sensitivity, 684
Glycogen storage disease type II, 32, 143, 149
Glycogen storage disease type V, 350
Glycogen synthase kinase-3β, 69
Glycogenosis II, 122
Golden Retriever muscular dystrophy, 815
GQ1b antibodies, 685
Graft-versus-host disease, 643
Granulomatous myositis, 699
Growth, 989
Guillain-Barré syndrome, 42, 676, 697, 700, 740

H

H-reflex, 213, 221, 726, 727
Hand construction, 1033
Hand position, 724
Hand temperature, 719
Heart, 883
Heart function, 714
Hepatitis C, 732
Hereditary inclusion-body myopathy, 340, 716
Hereditary rimmed vacuole myopathy, 472
Hereditary spastic paraplegia, 753
Hip flexor fatigue, 103
Hirayama disease, 206
HIV-1 infection, 1040
Hospital management, 195
Hyaline inclusion myopathy, 657
Hyperexcitability, 741
Hyperhomocysteinemia, 692, 736
Hyperthermia, 633
Hypokalemia, 662

I

Idiopathic hyperhomocysteinemia, 692, 736
Immunoglobulin, 693, 745
Immunohistochemistry markers, 8
Immunomodulation, 743
Immunoreactivity, 520
Inclusion-body myopathy, 340, 716
Inclusion body myositis, 8, 19, 469, 520
Infection, 1040
Inflammation, 997
Inflammatory demyelinating polyneuropathy, 685, 688
Inflammatory myopathy, 309, 741, 1056
Infliximab, 488
Influenza vaccination, 944
Inpatient electromyography, 195
Insertional activity, 732
Interference pattern analysis (IPA), 722
Interferon, 732
Interpolated twitch technique, 721
Interstitial amyloid deposition, 472
Intragluteal injection, 864
Intramuscular pressure, 79
Intraneural tumors, 702
Intravenous immunoglobulin, 693, 745, 890
Ipsilateral corticospinal tract, 729
Ischemia-reperfusion injury, 582
Isometric force, 79

J

Jitter, 331, 728, 738
Joint angle, 420
Juvenile muscular atrophy, 206

K

Karachhi, Pakistan, 697
Karpati, George, 169
Kidney function, 438
Kilmer, David T., 914
Korean patients, 855
Krivackas, Lisa S., 913

L

Lambert-Eaton myasthenic syndrome, 134, 305, 486, 795

Lamin A/C mutation, 712
Laryngeal electromyography, 689
Laryngeal myotonia, 712
Laryngeal synkinesis, 689
Laser Doppler imaging, 982
Lateral femoral cutaneous nerve, 717
Lead, 676
Leg muscles, 535
Leukemia, 685
Levetiracetam, 739
Levofloxacin, 687
Limb-girdle muscular dystrophy type 2I, 883
Lithium, 173
Lower limb, 730
Lower motor neuron disease, 880
Lumbar radiculopathy, 710
Lumbosacral radiculoplexus neuropathy, 700
Lung cancer, 738
Lyme disease, 626

M

M-wave, 221, 721, 727
Machado-Joseph disease, 1009
Magnetic motor evoked potentials, 728
Magnetic resonance imaging, 122, 815
Malignant hyperthermia, 633
Martin-Gruber anastomosis, 717
Masseter reflex, 640
Mathematical models, 573
Maximum voluntary contraction, 679
McArdle disease, 350
Mechanical ventilation, 706
Mechanomyography, 240
Median nerve, 94, 743
Median nerve compression, 678
Median nerve cross sectional area, 691
Median sensory studies, 724
Meralgia paresthetica, 698
Mesenteric ischemia, 745
MG-QOL15, 747, 748
Microscopy, 973
Middle finger, 701
Mitochondrial DNA (mtDNA), 381, 648
Mitochondrial electron transport chain complex II deficiency, 711
Mitochondrial electron transport chain complex III deficiency, 711
Mitochondrial myopathy, 711
Modafinil, 708
Monoclonal gammopathy of undetermined significance, 694
Monomelic amyotrophy, 860
Motor conduction, 674
Motor evoked potentials, 728
Motor nerve conduction studies, 733, 772
Motor neuron disease, 675, 753, 880
Motor neuropathy, 674, 676, 691
Motor unit action potentials (MUAPs), 709, 1005
Motor unit number estimation (MUNE), 115, 704, 710, 809
Motor units, 112, 221
Multifocal acquired demyelinating sensory and motor polyneuropathy (MADSAM), 679
Multifocal motor neuropathy, 674, 691, 693
Multifocal neuropathy, 694
Multifrequency electrical impedance myography, 679
Multipoint stimulation, 115
Muscle action potential, 704
Muscle activation, 130, 402
Muscle afferent activity, 827
Muscle afferent somatosensory evoked potentials, 715
Muscle biopsy, 722
Muscle contractile tissue displacement, 420
Muscle contractility, 443
Muscle contraction, 589, 679, 827
Muscle cramps, 535
Muscle cross-sectional area, 430
Muscle fatigue, 395, 573, 827, 1016
Muscle fiber density, 722
Muscle growth, 989
Muscle length, 573
Muscle pain, 711, 735
Muscle progenitor cells, 562
Muscle relaxants, 139
Muscle ring finger-1 (MuRF1), 69
Muscle strength, 430, 714
Muscle stretch reflexes, 529
Muscle-tendon complex length, 420
Muscle tissue, 472
Muscle transfer, 746
Muscle weakness, 350, 679, 748
Muscular atrophy, 206
Muscular dystrophy, 200, 249, 438, 476, 815
Mutations, 143, 381, 633, 648, 694, 706, 712
Myasthenia gravis, 137, 279, 699, 737, 738, 739, 740, 741, 744, 746, 748, 749, 801, 944, 949, 1061
Myasthenia Gravis Composite (MG Composite), 747
Myelin protein zero, 694
Myocardial fibrosis, 466
Myocardial infarction, 744
Myofiber damage, 589
Myogenic cells, 545
Myopathy, 633, 715, 718
Myosin heavy chain IIb gene, 411
Myosin isoforms, 249
Myosin myopathy, 707
Myositis, 309, 699
Myostatin, 989
Myotonic dystrophy protein kinase (DMPK), 545
Myotonic dystrophy type 1, 707, 901
Myotonic dystrophy type 2, 1068, 1070

N

Natural killer cell leukemia, 685
Needle electrodes, 331, 729
Needle electromyography, 666
Needle jitter, 728
Needle recording, 729, 732
Needle recording electrodes, 733
Nerve biopsy, 684
Nerve conduction, 610, 683
Nerve conduction block, 290, 358, 679, 689, 693, 1065
Nerve conduction studies, 679, 703, 720, 723, 724, 731, 733, 751, 763, 772
Nerve regeneration, 964
Nerve transection, 725
Nerve ultrasound, 98
Neural cells, 545
Neurogenic injury, 725
Neurography, 964
Neurolymphomatosis, 693
Neuromuscular disease, 595, 1040
Neuromuscular electrical stimulation (NMES), 221
Neuromuscular transmission, 749
Neuromyotonia, 139
Neuropathy, 694, 700, 973
Nicotinic acetylcholine receptors, 716
Noise artifacts, 257
Non-small cell lung cancer, 738
Nutritional control, 745

O

Obituary, 169, 913, 914
Obstructive pulmonary disease, 62
Ocular myasthenia gravis, 748
Oculomotor apraxia type 2, 481
Orbicularis oculi, 728
Orbital myositis, 713
Oro-facial-pharyngeal neuropathy, 685
Os sacrum puncture, 677
Oxalosis, 679

P

Pain, 200, 257, 595, 711, 735
Pain insensitivity, 855
Pain prediction, 742
Painful small fiber neuropathy, 681
Pakistan, 697
Paralysis, 358, 689
Paramyotonia congenita, 712
Paresthesias, 681
Parkinson's disease, 240, 731
Patellar reflexes, 264
Pectoralis minor, 733
Pectoralis minor entrapment neuropathy, 687
Pediatrics, 402, 683, 699, 700, 860
Pericardial effusion, 476
Peripheral nerve hyperexcitability, 741
Peripheral nerve inflammation, 287
Peripheral nerve ischemia-reperfusion injury, 582
Peripheral nerve size, 957
Peripheral nervous system neurolymphomatosis, 693
Peripheral neuropathy, 488, 629, 694, 697, 1009
Peroneal neuropathy, 313
Peroneus tertius, 629
Pharyngeal magnetic motor evoked potentials, 728
Phenotype, 648, 714
Phrenic nerve conduction studies, 37, 703
Phrenic nerve palsy, 677
Physicians, 742
Piriformis syndrome, 10
Plasma exchange, 744
Point mutations, 648
Poliomyelitis, 860
Poly(DL-lactide-ϵ-caprolactone) nerve, 867
Polyglandular autoimmune syndrome type 3, 1061
Polymyositis, 309

Polyneuritis cranialis, 316
Polyneuropathy, 679, 745, 957
Polyradiculoneuropathy, 875
Pompe disease, 32, 143, 149, 708, 718
Posterior femoral cutaneous neuropathy, 681, 864
Prednisolone, 443
Primary demyelinating polyneuropathy, 679
Primary lateral sclerosis, 710
Procainamide, 901
Pronation-supination torque, 231
Protein biomarkers, 42, 50
Proteomics, 753
Proximal saphenous nerve conduction study, 731
Pseudo-conduction block, 290
Psoriasis, 488
Pulmonary disease, 62
Pulmonary function, 703
Pulse-wave velocity, 679

Q

Quadriceps, 715
Quadrifilar wire electrodes, 1033
Quadrilateral space, 734
Quality of life, 200, 747, 748
Quantile regression, 751, 763
Quantitative electromyography, 371
Quantitative magnetic resonance imaging, 122
Quantitative sensory testing, 257, 363

R

Radiculoplexus neuropathy, 700
Radiotherapy, 872
Rapid dried blood spot assay, 32
Recording electrodes, 733
Reference data, 751, 763, 772
Reflexes, 529, 640
Renal function, 438
Respiratory chain complex III, 706
Respiratory failure, 271, 688
Respiratory muscle strength, 714
Restless legs syndrome, 741
Rimmed vacuole myopathy, 472
Risk factor assessment, 677
Rituximab, 305
Rocuronium, 139
Ryanodine receptor gene *RYR1*, 633

S

S1 nerve action potential, 727
S1 nerve root, 727
S1 radiculopathy, 726
Sacral plexus, 677
Safety, 749
Salivary glands, 1051
Saphenous nerve conduction study, 731
Sarcoglycanopathies, 703
Sarcoidosis, 681, 903
Sarcoplasm, 19
Satellite cells, 455
Scapula, 734
Schwann cells, 867
Schwartz-Jampel syndrome, 55
Sciatic nerve, 872
Sciatic nerve compression, 679
Sciatic nerve conduction, 610
Sensation-sparing sural nerve biopsy, 603
Sensorimotor neuronopathy, 481
Sensory amplitude, 675
Sensory axonal loss, 736
Sensory interactions, 213
Sensory nerve conduction studies, 772
Sensory neuronopathy, 684
Sensory testing, 257
Sjögren's syndrome, 708
Skeletal muscle, 69, 443, 455, 556, 589, 725, 883, 915, 989, 997
Skeletal muscle force, 997
Skeletal muscle growth, 989
Skin temperature, 719
Sleep disorders, 556
Small fiber neuropathy, 681, 687
Sodium channel blockers, 901
Sodium-potassium-adenosine triphosphatase (Na^+-K^+-ATPase), 62
Sodium-potassium pump (Na^+-K^+ pump), 62
Soleus muscle, 213, 411, 727, 838
Somatosensory evoked potentials, 715, 735, 736
Spinal accessory nerve, 725
Spinal accessory nerve testing, 725
Spinal accessory nerve transection, 725
Spinal angiography, 206
Spinal cord injury, 69, 499
Spinal muscular atrophy, 652, 753
Spinobulbar muscular atrophy, 126, 753, 809
Spinocerebellar ataxia type 2, 640
Spinocerebellar ataxia type 3, 640
Statin therapy, 657
Steroid injections, 710, 743
Steroid myopathy, 718
Strength training, 430
Stroke, 722, 728
Superoxide dismutase gene (SOD1), 880
Sural nerve biopsy, 603
Sural sparing, 699
Surface electromyography, 617
Surgery, 683, 690, 745
Survival motor neuron gene 2 (SMN2), 652
Swimming pool sign, 677
Sympathetic neurons, 716
Synergist muscles, 395
Synkinesis, 689

T

T lymphocytes, 287
T reflex, 264
T2-weighted imaging, 815
Tacrolimus, 697
Tandutinib, 740
Tarsal tunnel syndrome, 688, 689
Tau, 520
TDP-43, 8, 19
Temperature, 719
Temporomandibular disorders, 595
Tendons, 395
Thermal thresholds, 257
Thermotesting, 257
Thoracic outlet syndrome, 733
Three-dimensional (3D) ultrasound, 682
Thymectomy, 137
Thymic carcinoma, 137
Tibialis anterior muscle, 79
Tick paralysis, 358
Tinel sign, 1030
Torque, 130, 221, 231, 402
Torque-based triggering, 130
Torque steadiness, 402
Transcriptional regulation, 411
Transmitochondrial cybrids, 381
Transthyretin amyloidosis polyneuropathy, 363
Trigeminal neuralgia, 735
Trigeminal somatosensory evoked potentials, 735
Triple-stimulation, 729
Tumors, 695, 702
Twitch, 221, 721

U

Ulnar cutaneous neuropathy, 698
Ulnar nerve, 664, 678, 696, 1051
Ulnar nerve entrapment, 696
Ulnar nerve transposition, 678
Ulnar neuropathy, 678, 695
Ultrasound, 94, 98, 664, 678, 682, 683, 698, 702, 705, 717, 730, 731, 957, 964, 1030, 1065
United Kingdom, 746
Upper limb, 730
Uric acid, 705
Utility, 195

V

Vaccination, 944
Vareniciline (Chantix), 486
Vascular endothelial growth factor, 556
Vasculitic neuropathy, 290
Vastus lateralis muscle, 62
Venography, 206
Vestibular stimulation, 213
Vibration, 727
Video analysis, 746
Vocal cord paralysis, 880
Vocal fold paralysis, 689
Voltage-gated calcium channels, 305
Voluntary muscle activation, 130
Voluntary muscle activity, 721

W

Walking, 103
Weakness, 748
Whole-body vibration, 420
Wilson's disease, 294